

FIG. 1

10

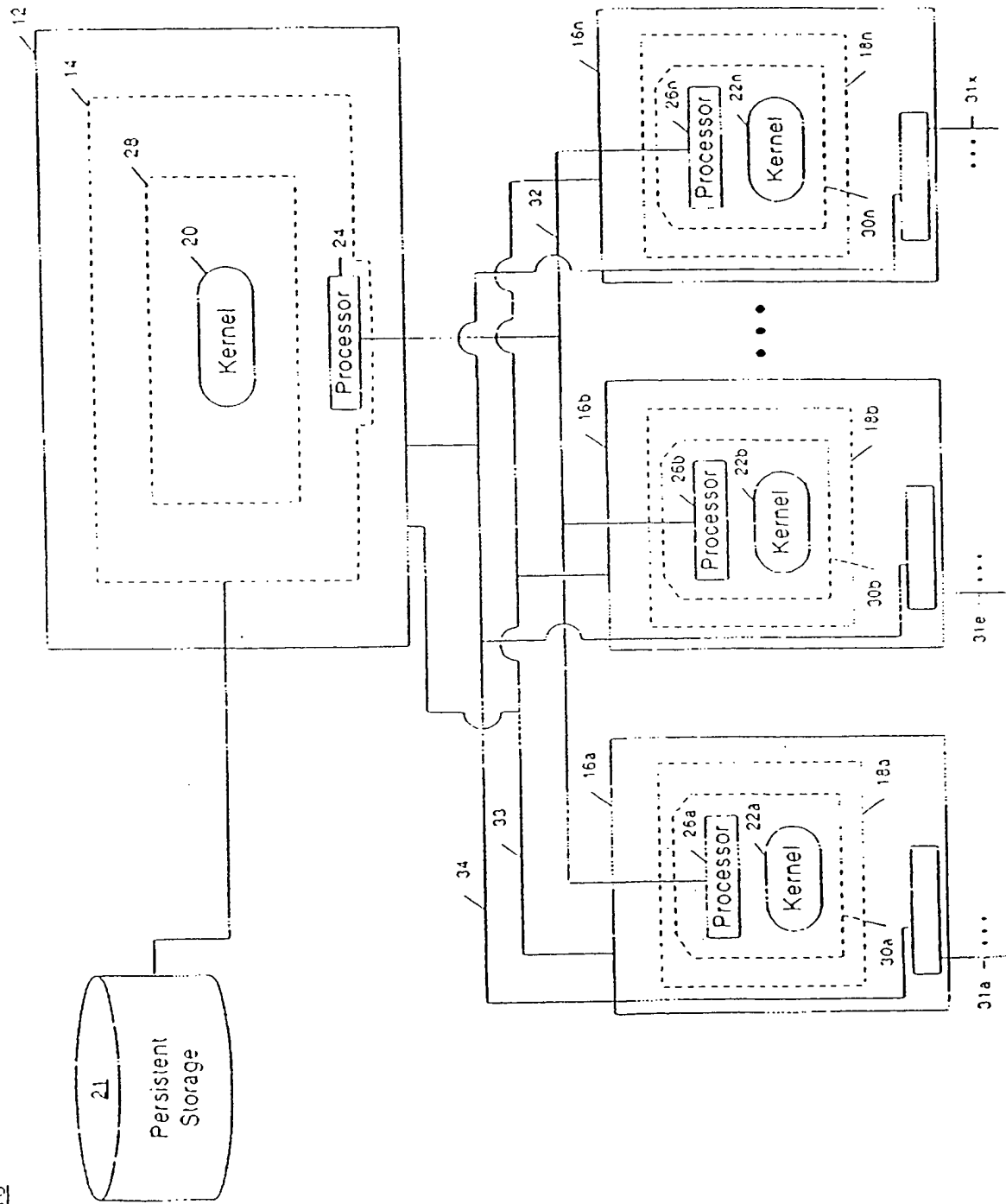


Fig. 2a

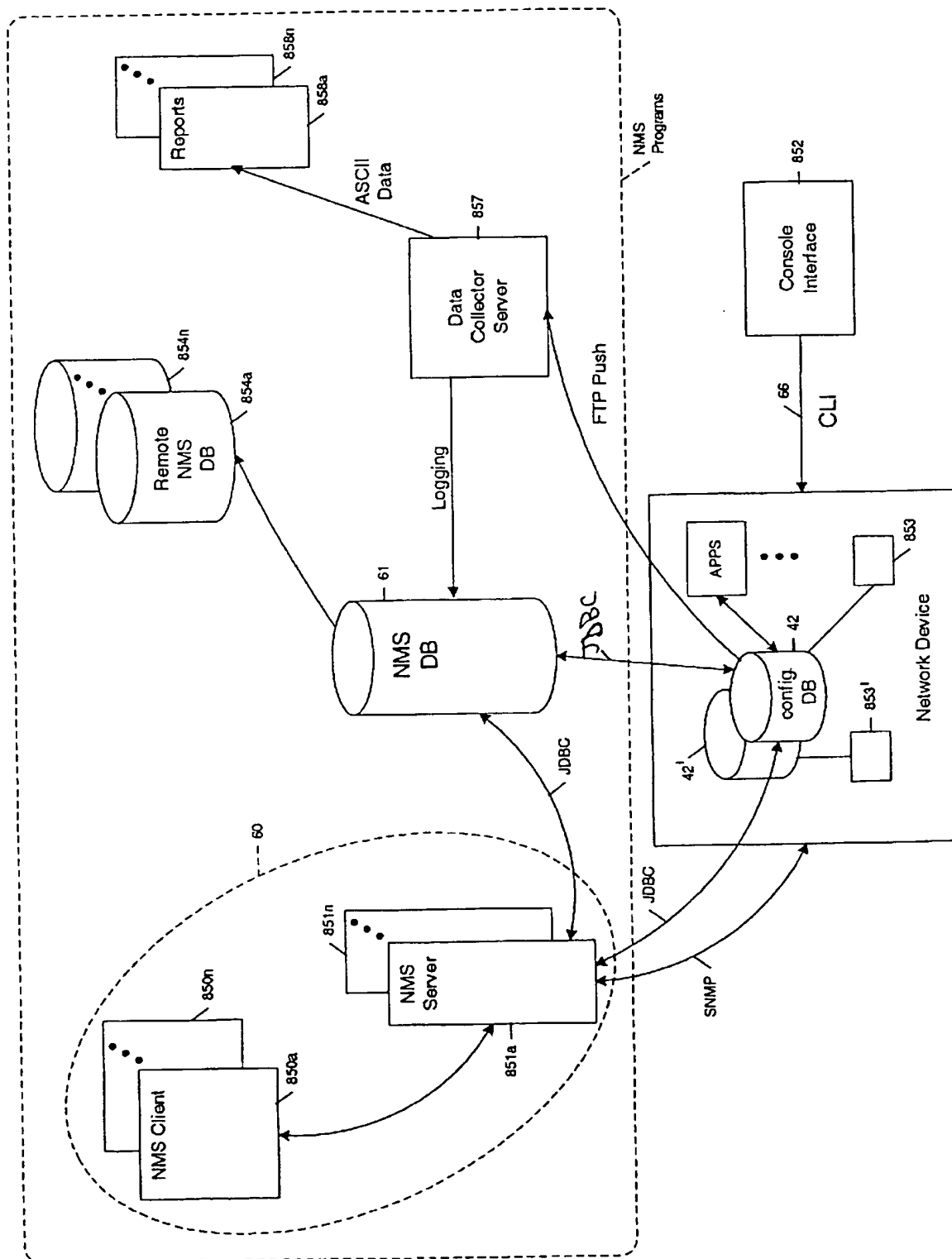


Fig. 2b

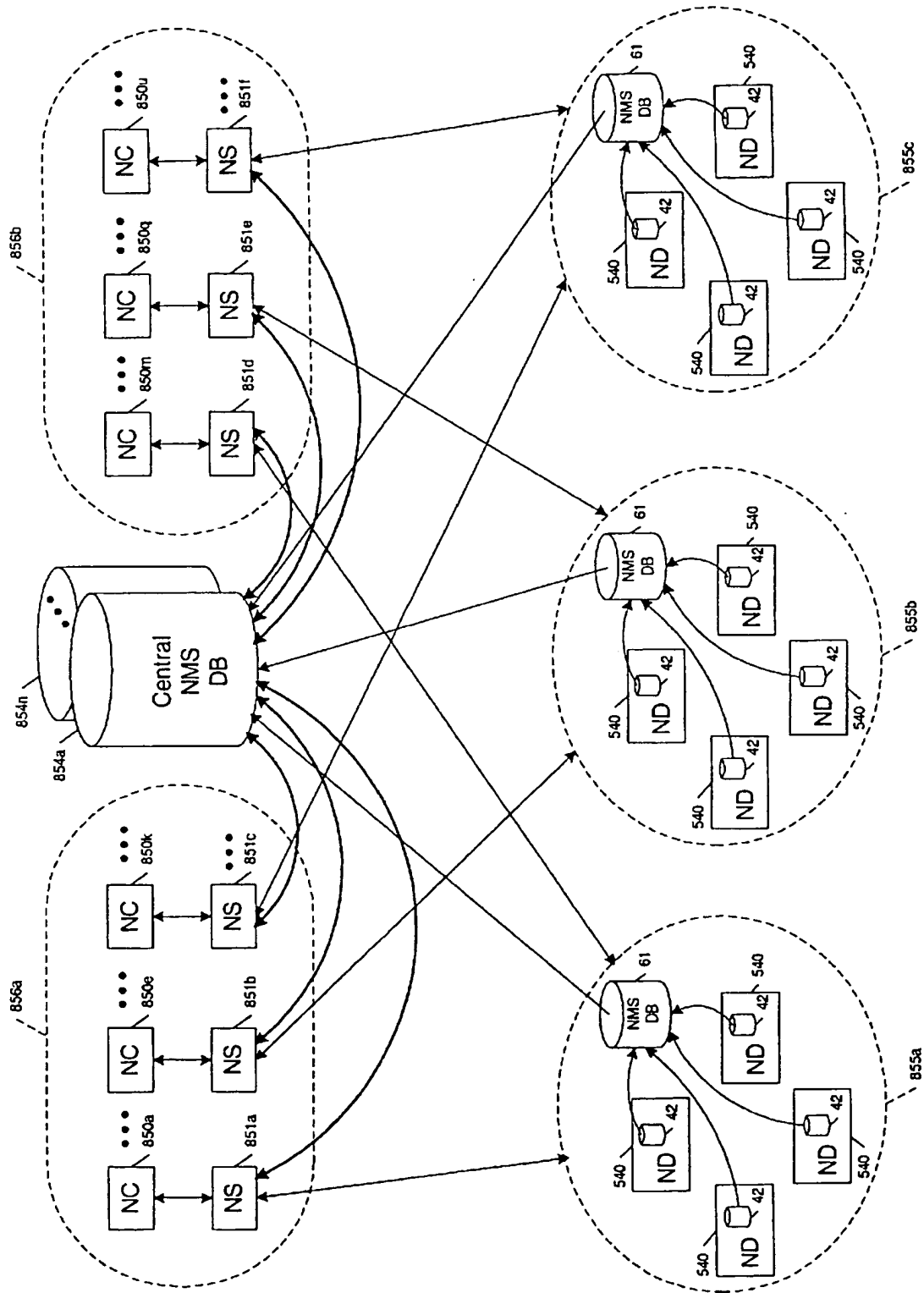


FIG. 3a

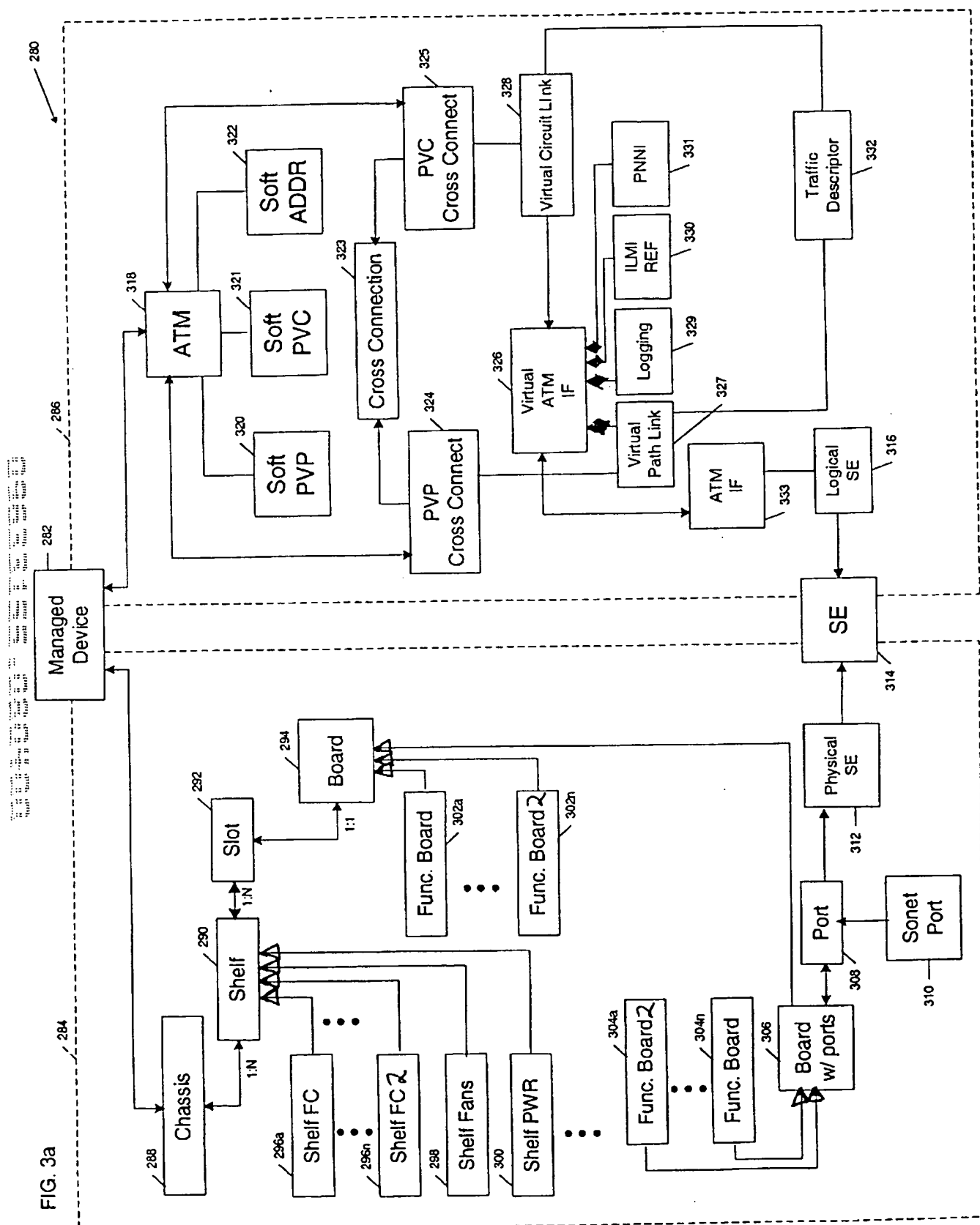
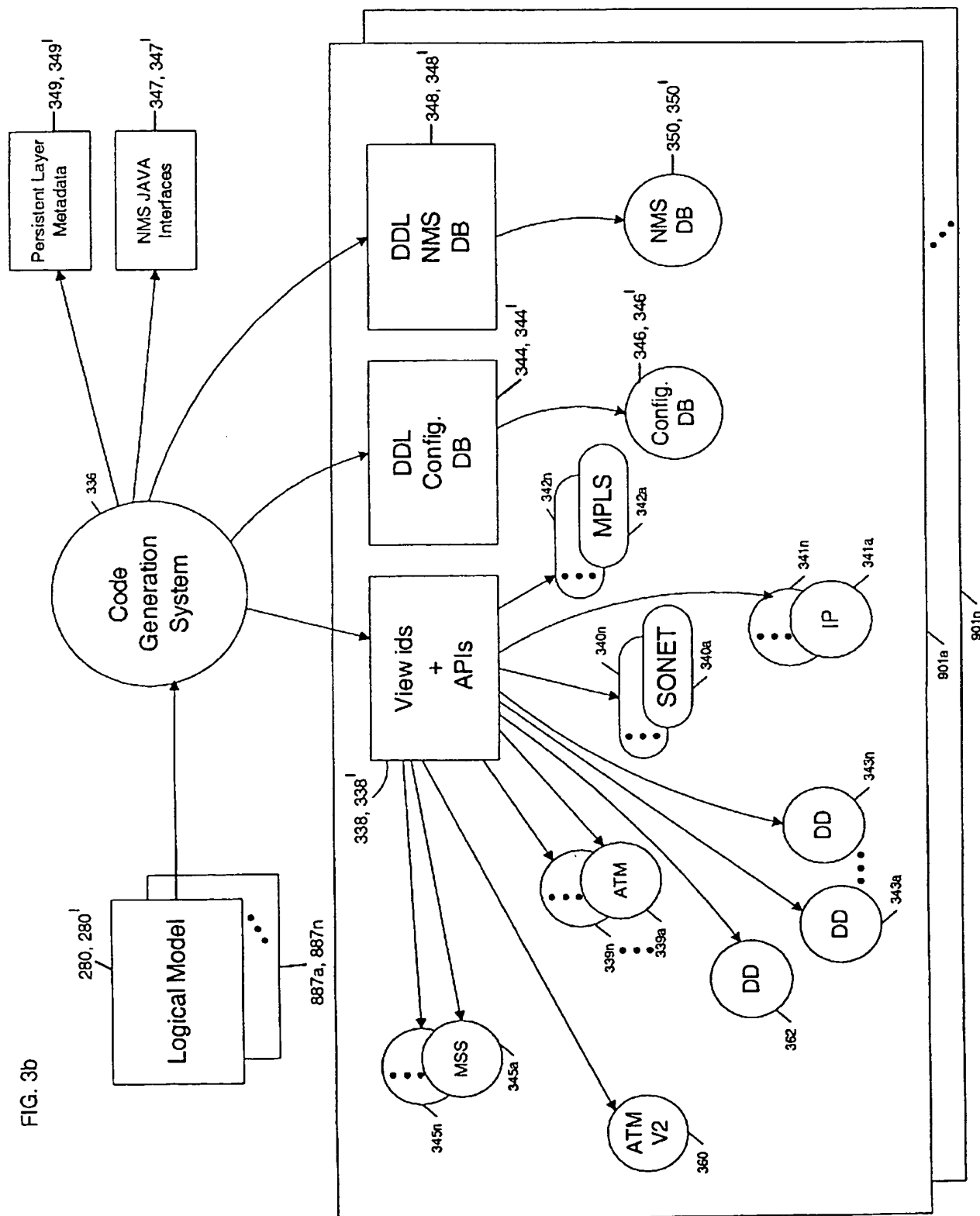


FIG. 3b



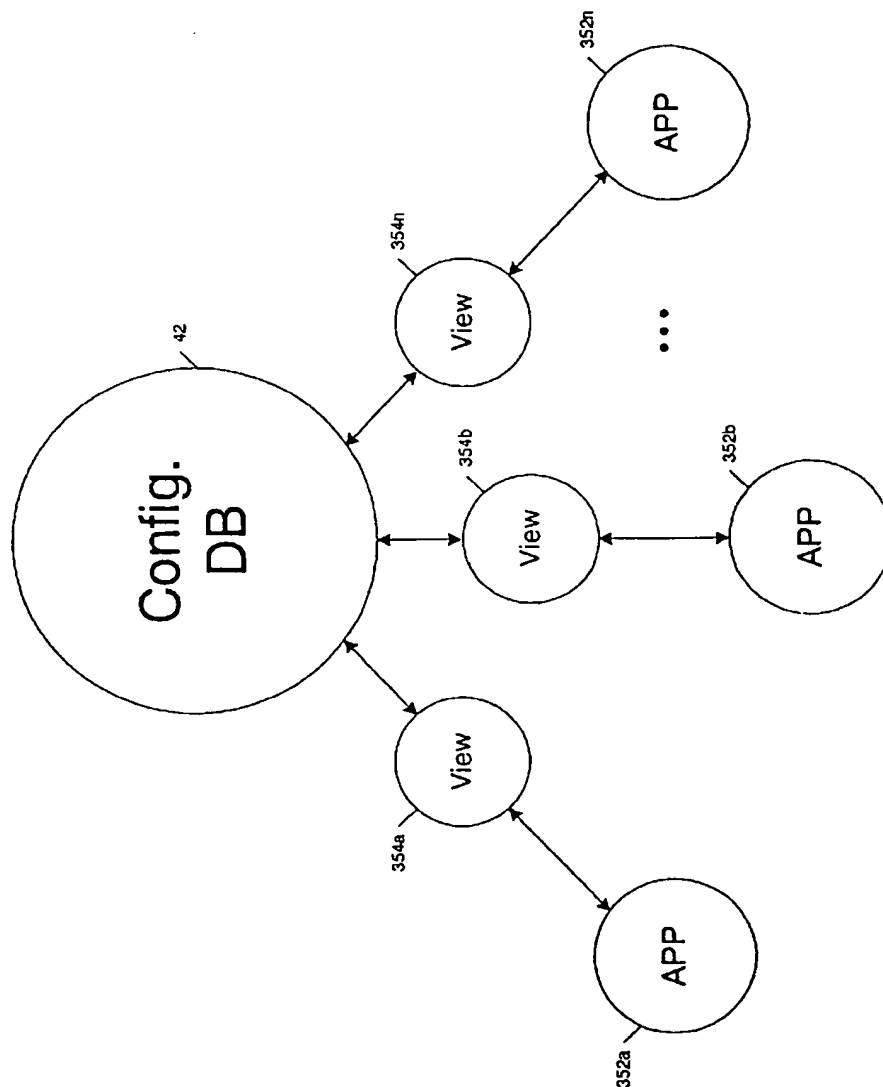


FIG. 3c

Fig. 3d

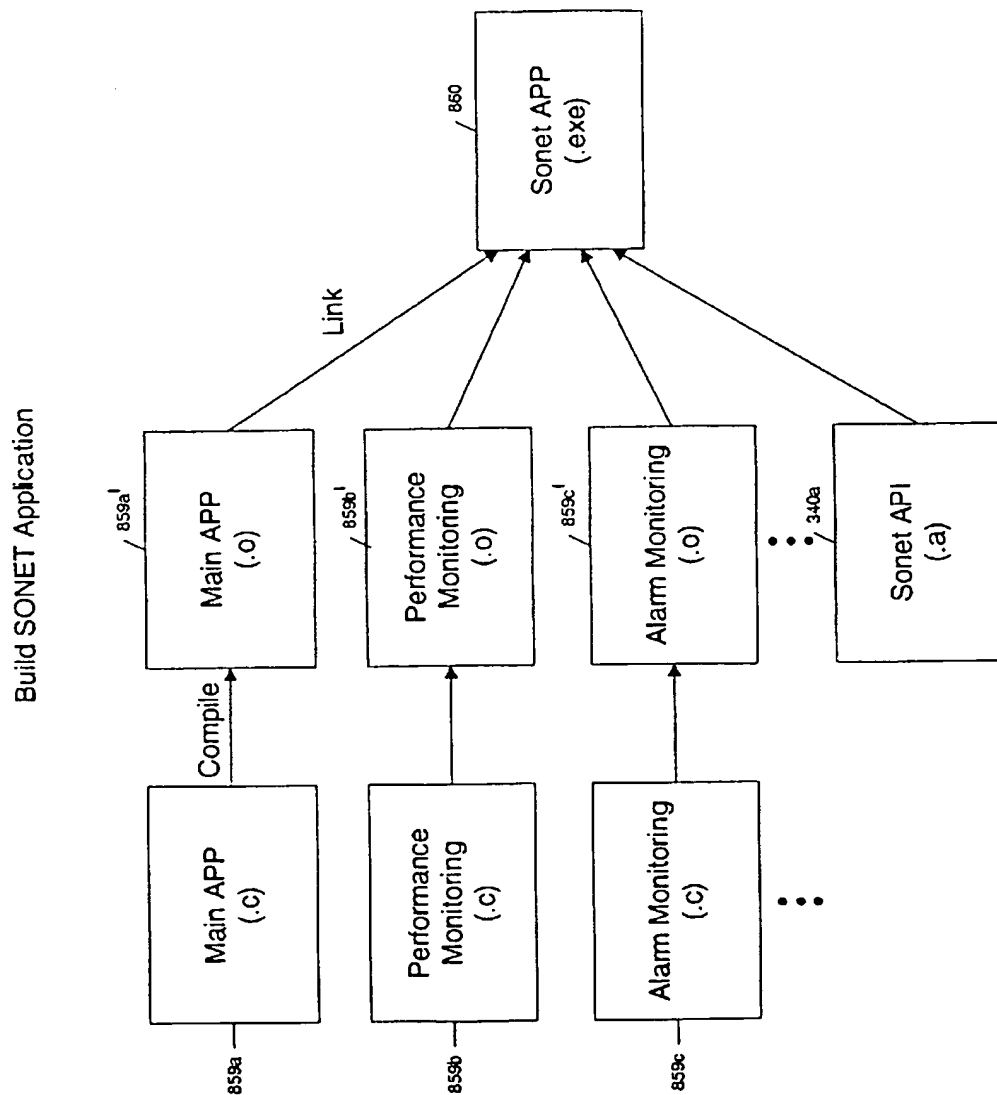


Fig. 3e

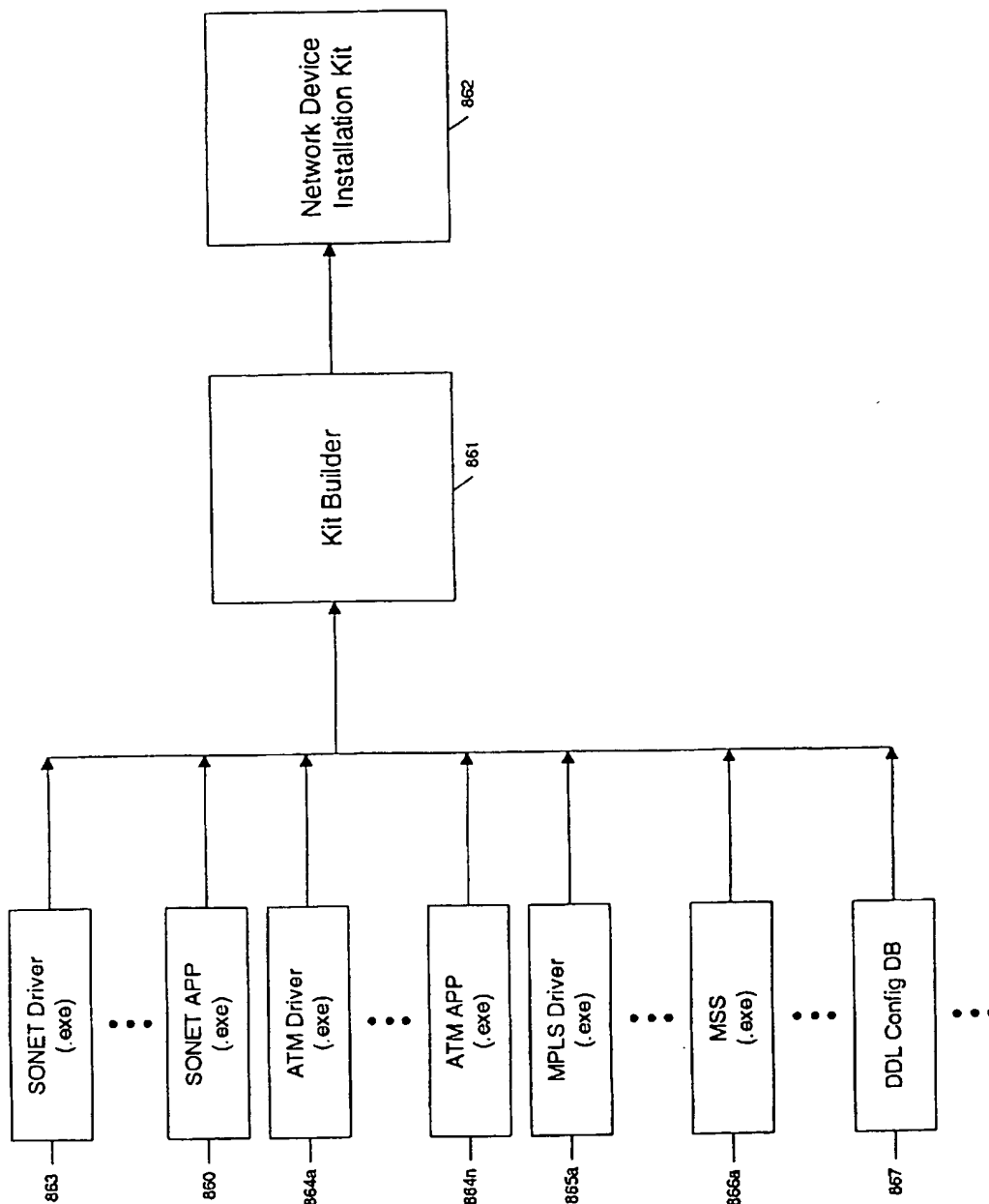


FIG. 3F is a block diagram of a system architecture for building and installing an NMS kit. The system includes a Kit Builder (861) which receives input from five components: DDL NMS DB (868), NMS JAVA Interfaces (869), Persistent Layer Metadata (870), NMS Server (865), and NMS Client (886). The Kit Builder (861) then outputs the NMS Installation Kit (871).

Fig. 3F

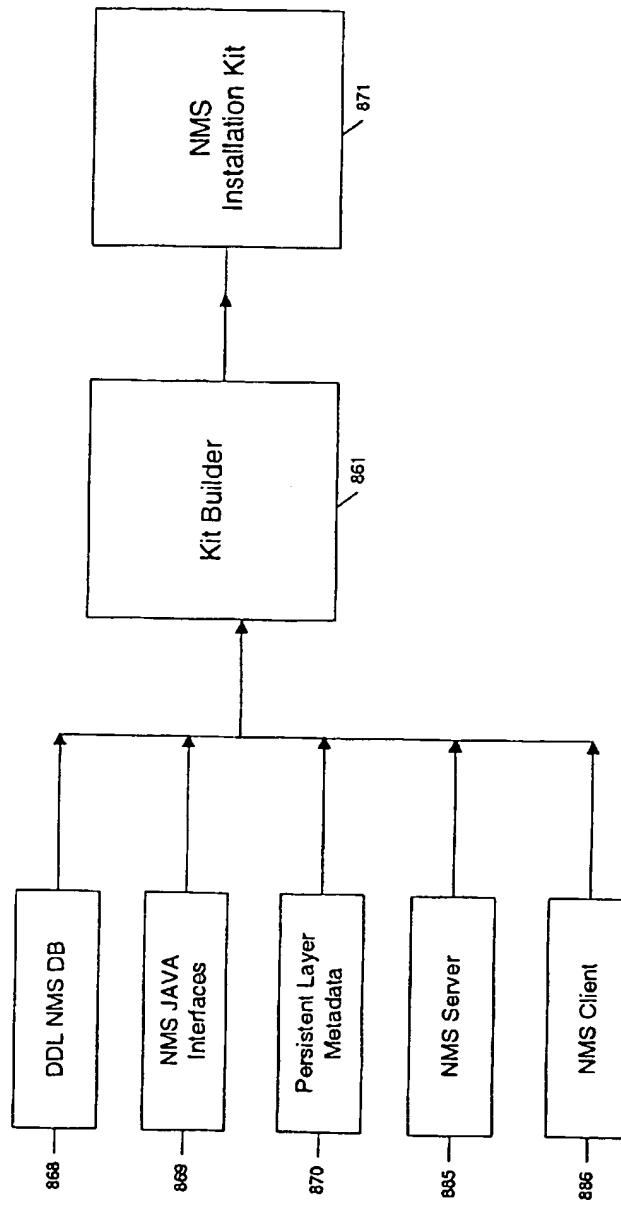
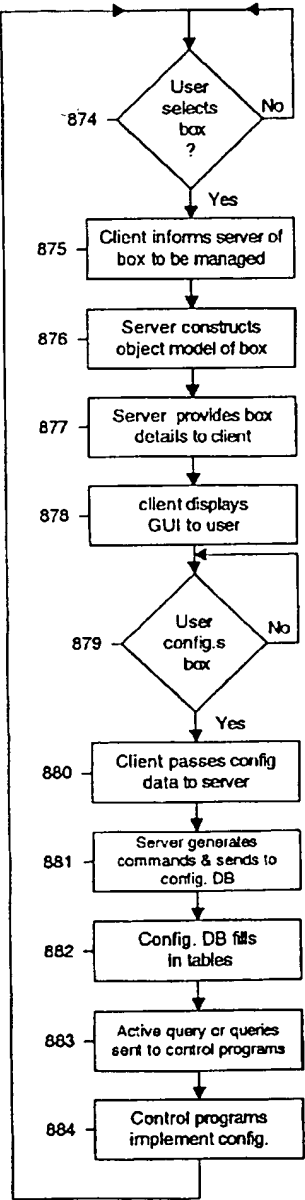


Fig. 3g



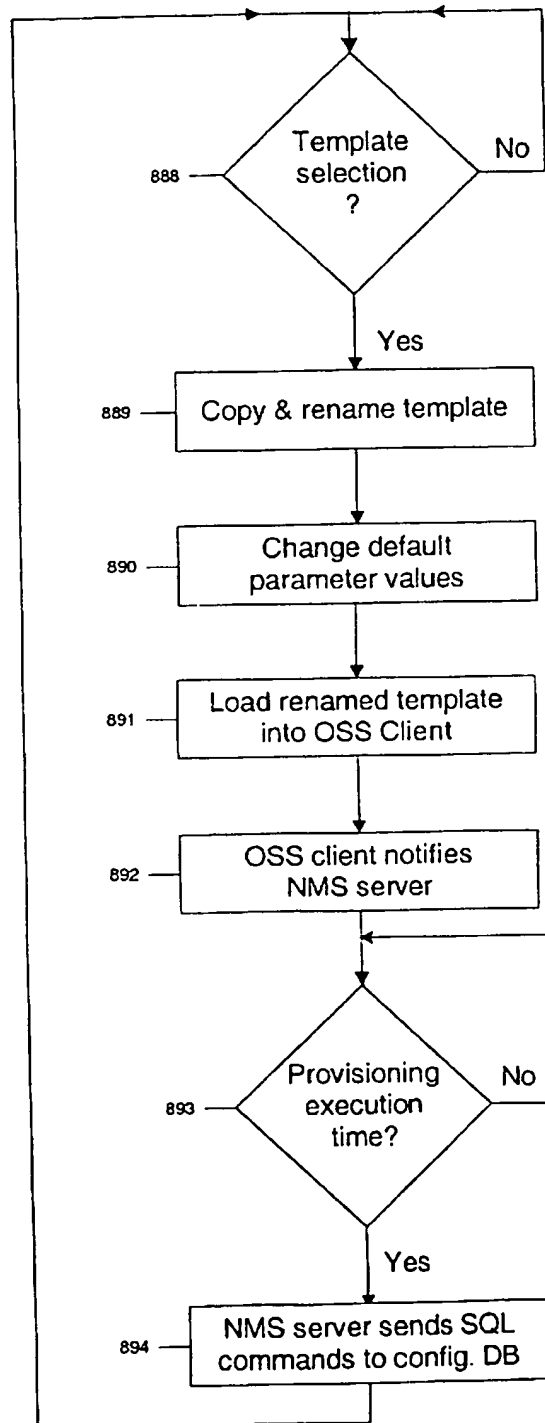


Fig. 3h

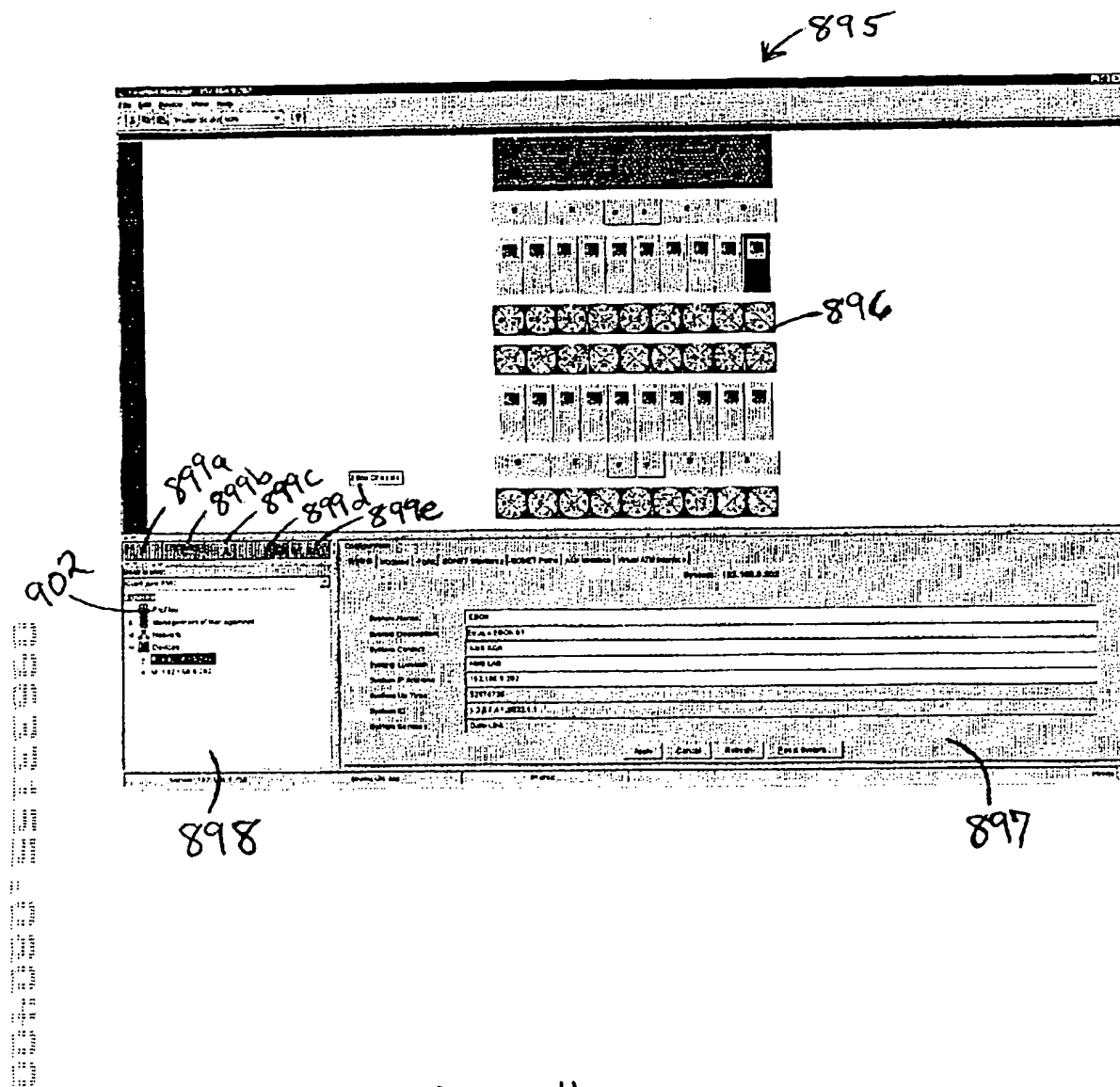


Fig. 4a

ÉvailNet Manager: Fault - Event Summary

System: 192.132.65.150

System	Event	Event Number	Description
1.1.55.6	Fan OverTemp	44	"Fan marginally functioning"
1.1.55.7	New Board Ins...	75	"New board inserted"

OK

-900

Fig. 4b

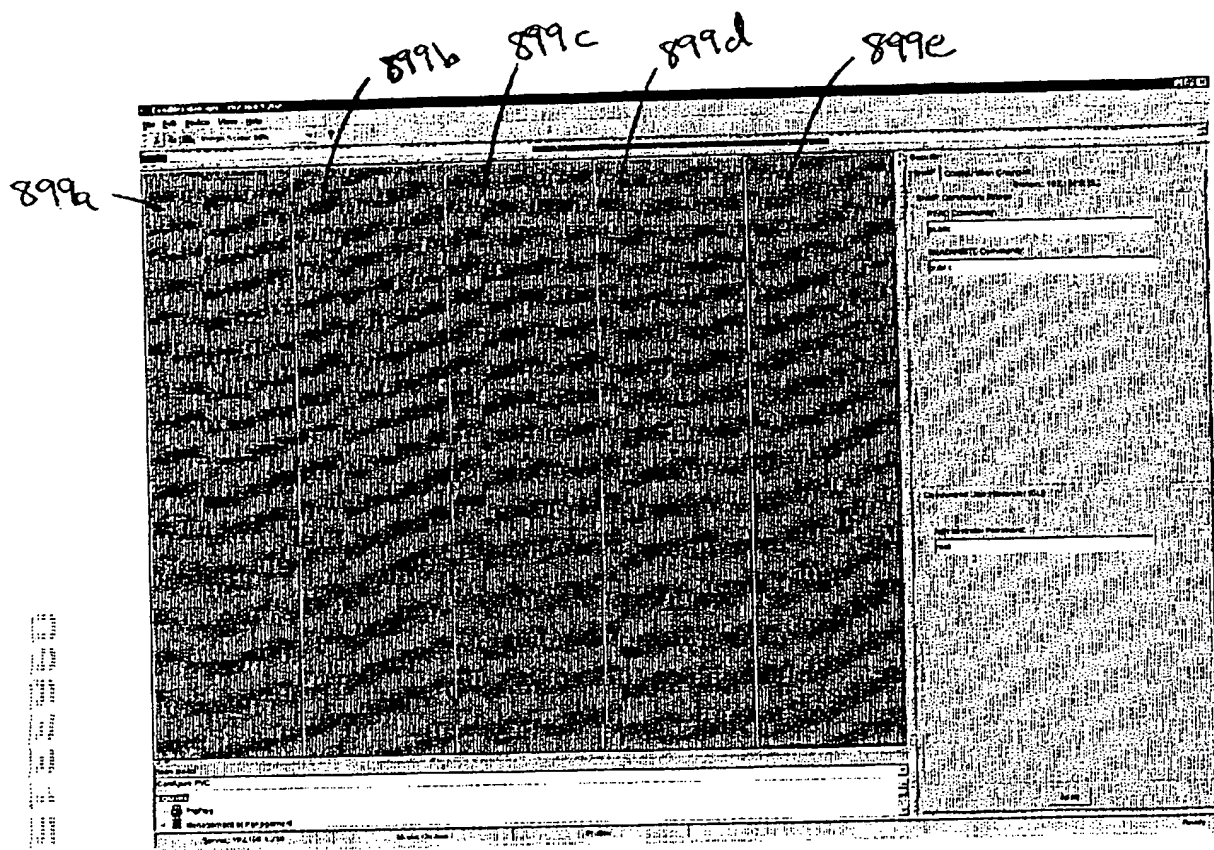


Fig. 4c

903

Profiles: System: 192.132.60.150

Profile Managers

Name	Description	Security Level	Timeout	Primary Server	Secondary Server
Joe	Joe Whitehouse	Admin	15	192.168.1.32	192.168.1.37
Wayne	Wayne Arena	Administrator	15	TeamServer1 192.168.1.32	TeamServer2 192.168.1.32

904

Add Delete Refresh Copy

905 906

Fig. 4d

Fig. 4e

← 907

General

Username: Kevin

Description: Kevin Snow user account

Group Name: Equipe

Group Level Access:

Password: *****

Confirm Password: *****

Policies

☒ User Cannot Change Password

☐ Account Disabled

☒ User Can Add Devices

User Session Timeout: 15 Minutes

Servers

Primary Server: 192.168.1.220

Primary Server Port: 6500

Secondary Server: 192.168.1.221

Secondary Server Port: 6503

Devices

Device	READ	READWRITE	Retry	Timeout
192.168.9.202	public	equipe	3	5
192.168.9.205	public	equipe	3	5
192.168.9.216	public	equipe	3	5

Add Delete

OK Cancel

908a

908e

908f

908d

908b

908c

908h

908i

908j

908k

908l

908n

908m

908o

908p

908q

908r

908s

908t

Fig. 4f

General Policies Servers Devices

Username: Kevin

Description: Kevin Snow user account

Customer Name: Equipe

Group Level Access: ▼

Password: *****

Confirm Password: *****

OK Cancel

General Policies Servers Devices

☐ User Cannot Change Password

☐ Account Disabled

☒ User Can Add Devices

User Session Timeout: 15 Minutes

OK Cancel

Fig. 4g

Fig. 4h

General Policies Servers **Servers** Devices

Primary Server: 192.168.1.220

Primary Server Port: 6500

Secondary Server: 192.168.1.205

Secondary Server Port: 6503

OK Cancel

General Policies Servers **Devices**

Device	READ	READWRITE	Retry	Timeout	Trap Port
192.168.9.202	public	equipe	3	5	162
192.168.9.205	public	equipe	3	5	162
192.168.9.216	public	equipe	3	5	5012

Add Delete

OK Cancel

Fig. 4i

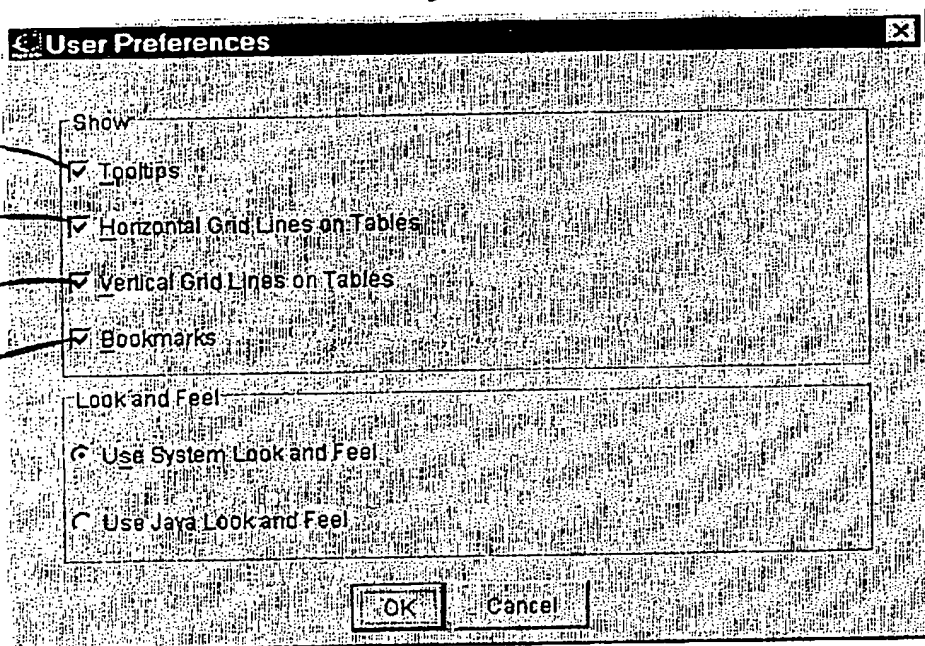
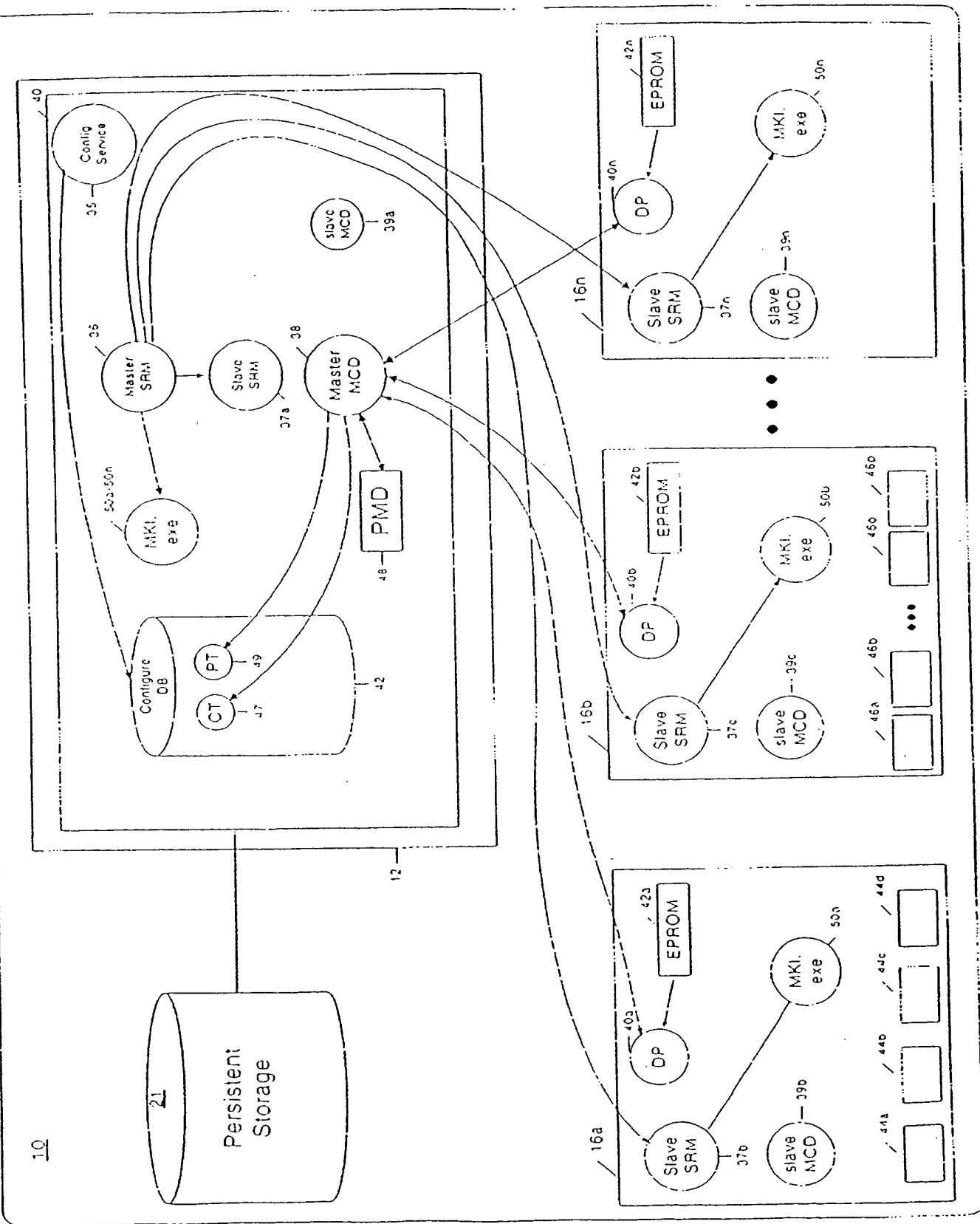


Fig. 4j

FIG. 5



16 a — 500 — OXF002 — 3 — 1 —
 16 b — 501 — OXF002 — 4 — 2 —
 : : : : :
 : : : : :
 16 e — 505 — OX6002 — 1 — 5 —
 : : : : :
 16 n — 513 — OXF002 — 1 — 12 —
 : : : : :

CARD TABLE

47

PID	CWD TYPE	VERSION NO.	SLOT NO.	...
16 a — 500	OXF002	3	1	
16 b — 501	OXF002	4	2	
: :	: :	: :	: :	: :
16 e — 505	OX6002	1	5	
: :	: :	: :	: :	: :
16 n — 513	OXF002	1	12	
: :	: :	: :	: :	: :

FIG. 6

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100
 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140 141 142 143 144 145 146 147 148 149 150 151 152 153 154 155 156 157 158 159 160 161 162 163 164 165 166 167 168 169 170 171 172 173 174 175 176 177 178 179 180 181 182 183 184 185 186 187 188 189 190 191 192 193 194 195 196 197 198 199 200
 201 202 203 204 205 206 207 208 209 210 211 212 213 214 215 216 217 218 219 220 221 222 223 224 225 226 227 228 229 230 231 232 233 234 235 236 237 238 239 240 241 242 243 244 245 246 247 248 249 250 251 252 253 254 255 256 257 258 259 260 261 262 263 264 265 266 267 268 269 270 271 272 273 274 275 276 277 278 279 280 281 282 283 284 285 286 287 288 289 290 291 292 293 294 295 296 297 298 299 300
 301 302 303 304 305 306 307 308 309 310 311 312 313 314 315 316 317 318 319 320 321 322 323 324 325 326 327 328 329 330 331 332 333 334 335 336 337 338 339 340 341 342 343 344 345 346 347 348 349 350 351 352 353 354 355 356 357 358 359 360 361 362 363 364 365 366 367 368 369 370 371 372 373 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 391 392 393 394 395 396 397 398 399 400
 401 402 403 404 405 406 407 408 409 410 411 412 413 414 415 416 417 418 419 420 421 422 423 424 425 426 427 428 429 430 431 432 433 434 435 436 437 438 439 440 441 442 443 444 445 446 447 448 449 450 451 452 453 454 455 456 457 458 459 460 461 462 463 464 465 466 467 468 469 470 471 472 473 474 475 476 477 478 479 480 481 482 483 484 485 486 487 488 489 490 491 492 493 494 495 496 497 498 499 500
 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 520 521 522 523 524 525 526 527 528 529 530 531 532 533 534 535 536 537 538 539 540 541 542 543 544 545 546 547 548 549 550 551 552 553 554 555 556 557 558 559 560 561 562 563 564 565 566 567 568 569 570 571 572 573 574 575 576 577 578 579 580 581 582 583 584 585 586 587 588 589 590 591 592 593 594 595 596 597 598 599 600
 601 602 603 604 605 606 607 608 609 610 611 612 613 614 615 616 617 618 619 620 621 622 623 624 625 626 627 628 629 630 631 632 633 634 635 636 637 638 639 640 641 642 643 644 645 646 647 648 649 650 651 652 653 654 655 656 657 658 659 660 661 662 663 664 665 666 667 668 669 670 671 672 673 674 675 676 677 678 679 680 681 682 683 684 685 686 687 688 689 690 691 692 693 694 695 696 697 698 699 700
 701 702 703 704 705 706 707 708 709 710 711 712 713 714 715 716 717 718 719 720 721 722 723 724 725 726 727 728 729 730 731 732 733 734 735 736 737 738 739 740 741 742 743 744 745 746 747 748 749 750 751 752 753 754 755 756 757 758 759 760 761 762 763 764 765 766 767 768 769 770 771 772 773 774 775 776 777 778 779 780 781 782 783 784 785 786 787 788 789 790 791 792 793 794 795 796 797 798 799 800
 801 802 803 804 805 806 807 808 809 810 811 812 813 814 815 816 817 818 819 820 821 822 823 824 825 826 827 828 829 830 831 832 833 834 835 836 837 838 839 840 841 842 843 844 845 846 847 848 849 850 851 852 853 854 855 856 857 858 859 860 861 862 863 864 865 866 867 868 869 870 871 872 873 874 875 876 877 878 879 880 881 882 883 884 885 886 887 888 889 890 891 892 893 894 895 896 897 898 899 900
 901 902 903 904 905 906 907 908 909 910 911 912 913 914 915 916 917 918 919 920 921 922 923 924 925 926 927 928 929 930 931 932 933 934 935 936 937 938 939 940 941 942 943 944 945 946 947 948 949 950 951 952 953 954 955 956 957 958 959 960 961 962 963 964 965 966 967 968 969 970 971 972 973 974 975 976 977 978 979 980 981 982 983 984 985 986 987 988 989 990 991 992 993 994 995 996 997 998 999 1000

PORT TABLE

49

PID	PORT TYPE	VERSION NO.	SLOT NO.	...
44a — 1500	00620	1	1	
44b — 1501	00620	1	1	
44c — 1502	00620	1	1	
44d — 1503	00620	1	1	
46a — 1504	00820			
⋮	⋮	⋮	⋮	⋮
1600	00620	1	8	
⋮	⋮	⋮	⋮	⋮

FIG. 7

FIG. 8

10

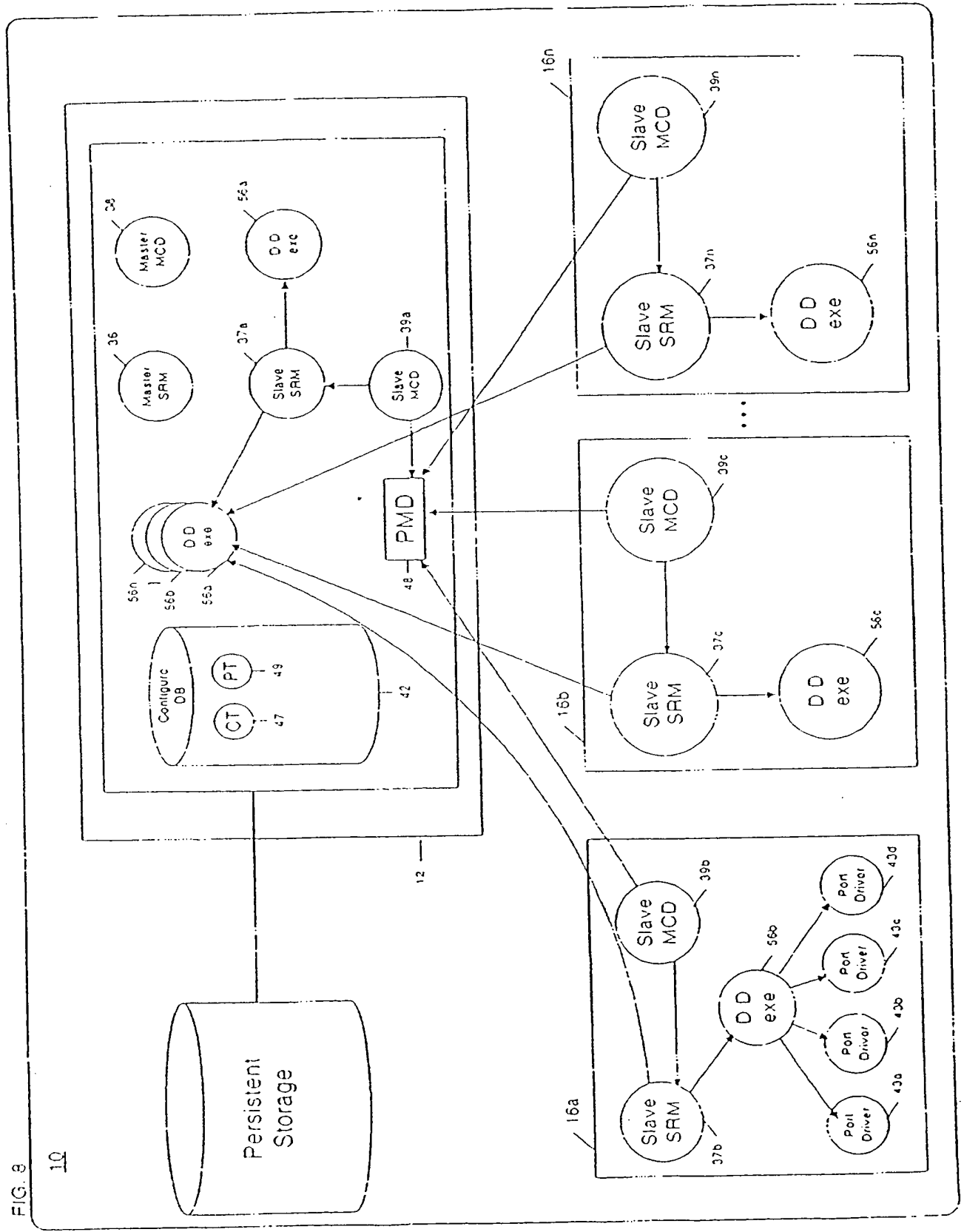


FIG. 9

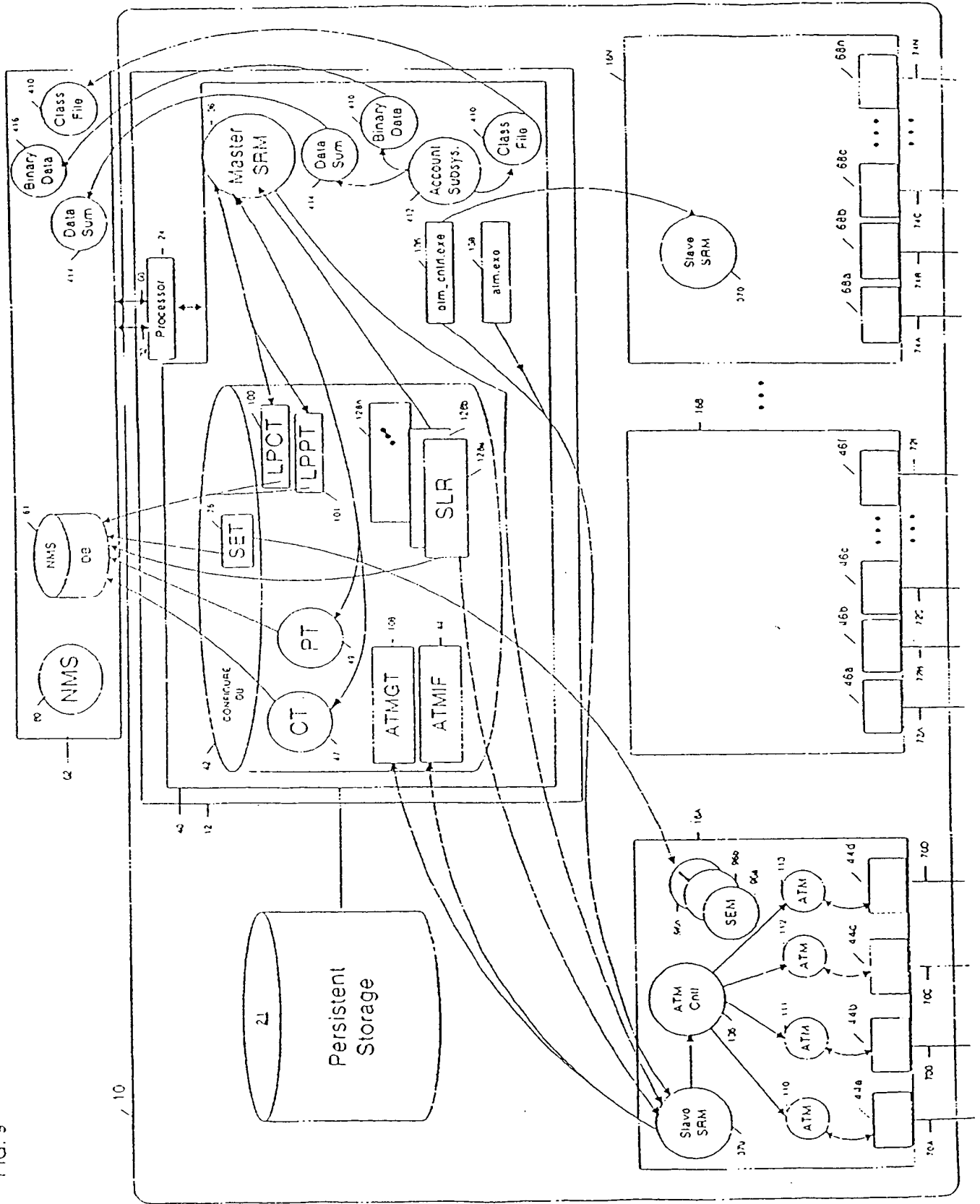


FIG. 10

Service Endpoint Table 76

	Service Endpoint #	Port PID
78	1	1500
80	2	1501
82	3	1501
84	4	1501
86	5	1502
88	6	1502
90	7	1503
92	8	1503
94	9	1503
168	10	1502
	⋮	⋮

FIG. 11a

Logical to Physical Card Table 100

	98 LID	102 Primary PID	104 Back-up PID
106	30	500	513
109	31	501	513
	⋮	⋮	⋮

FIG. 11b

Logical to Physical Port Table 101

	98 LID	102 Primary PID	104 Back-up PID
107	40	1500	1600
	⋮	⋮	⋮

FIG. 12

ATM Group Table 108

Group #	Card LID	...
1	30	
2	30	
3	30	
4	30	

FIG. 13

ATM Interface Table 114

ATM IF	ATM Group	SE	...
1	1	1	
2	1	1	
3	1	1	
4	2	2	
5	2	3	
6	2	4	
⋮	⋮	⋮	⋮
12	3	10	
⋮	⋮	⋮	⋮

FIG. 14

Software Load Record 128a

130	Control Shim	LID	132
134	atm-cntl.exe	30	

FIG. 15

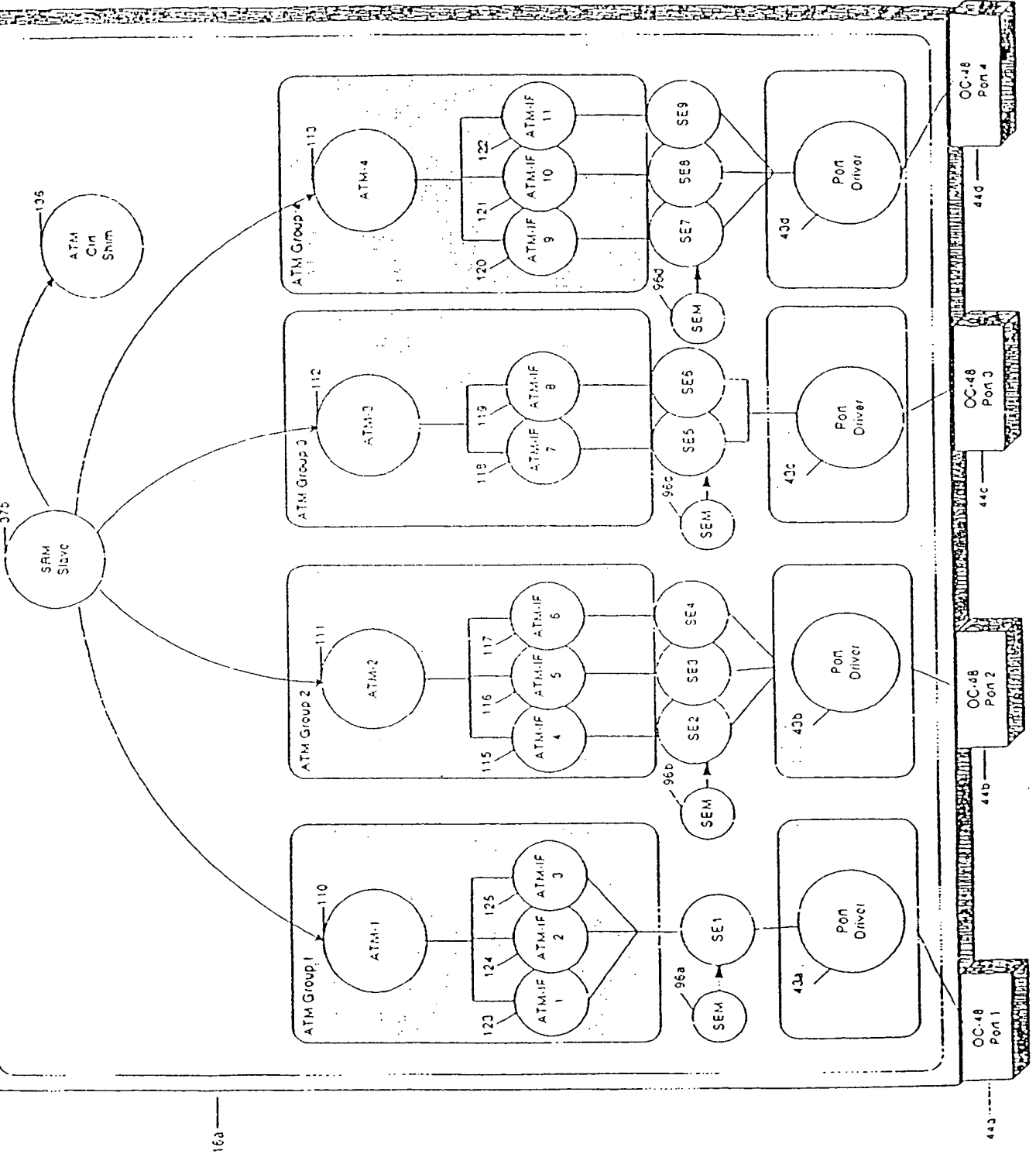


FIG. 16a is a block diagram of a system architecture. The system includes an ATM (240) connected to three Device Drivers (248, 250, 252). The ATM (240) contains three ATM IF components (242, 243, 244). The Device Driver (248) contains three SE components (253, 254, 255). The Device Driver (250) contains two SE components (256, 258). The Device Driver (252) contains three SE components (259, 260, 261). The Device Driver (252) is also labeled as a New Device Driver. The Device Driver (241) contains two ATM IF components (245, 247).

FIG. 16a

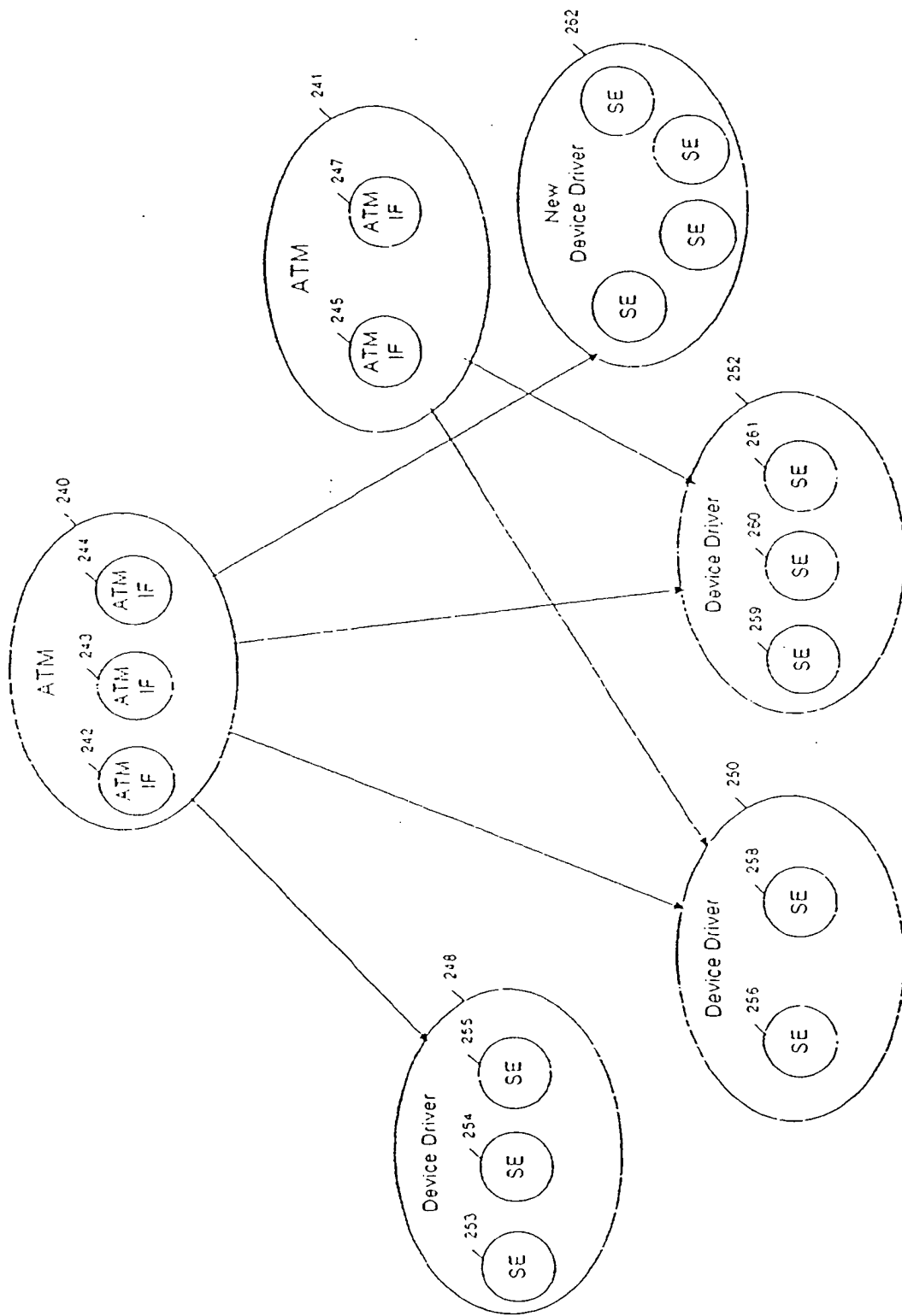


FIG. 16b

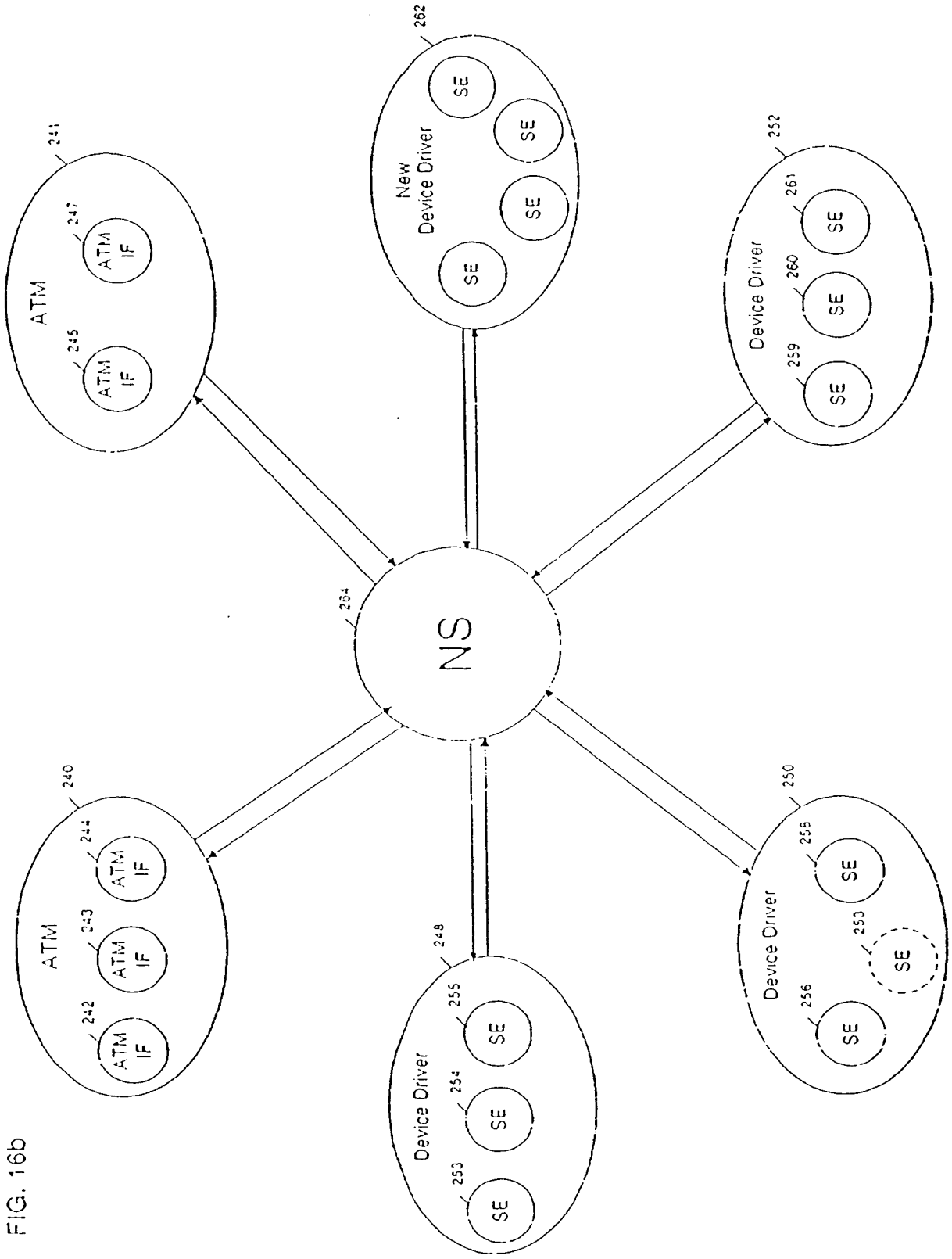


FIG. 15c

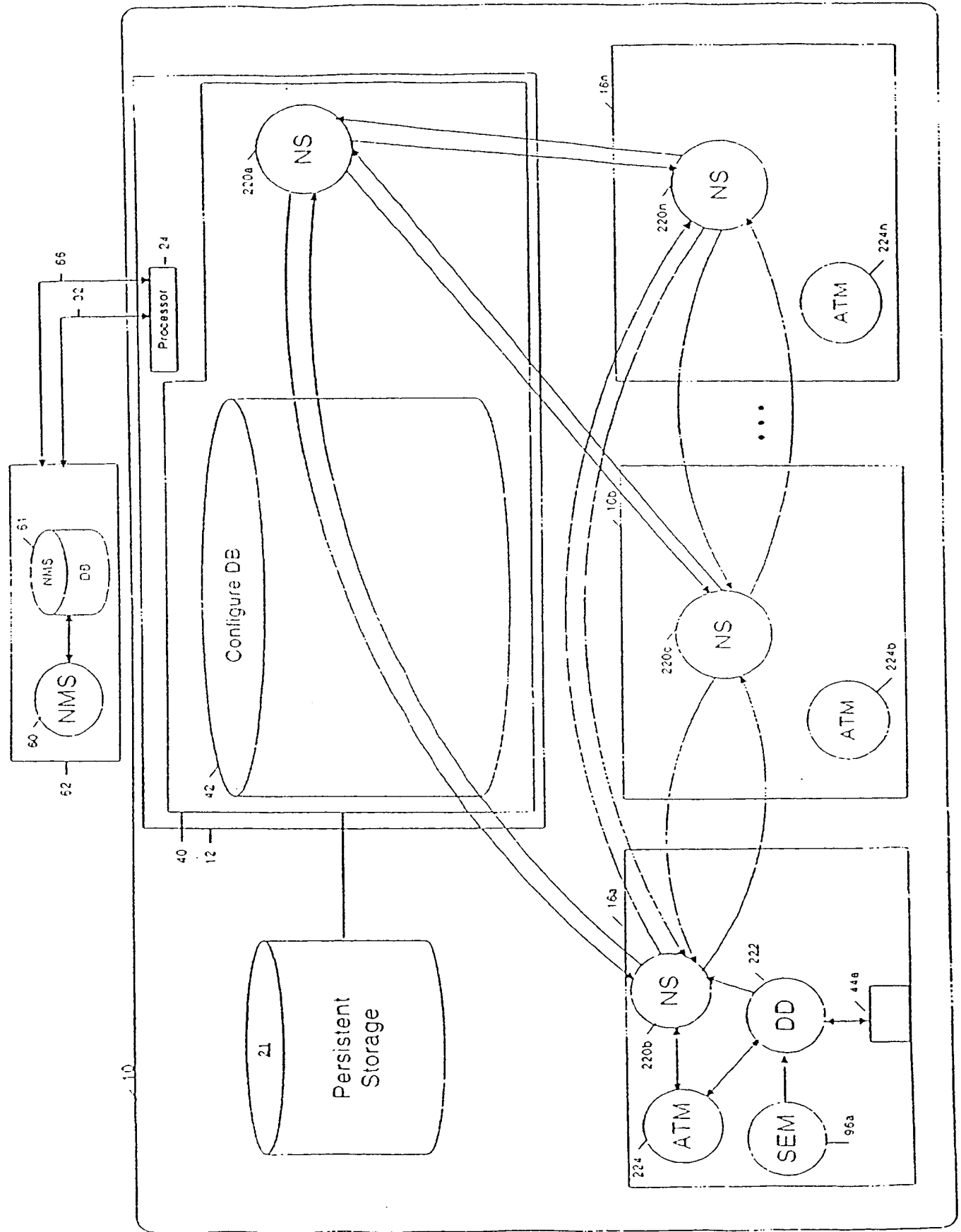


FIG. 16d

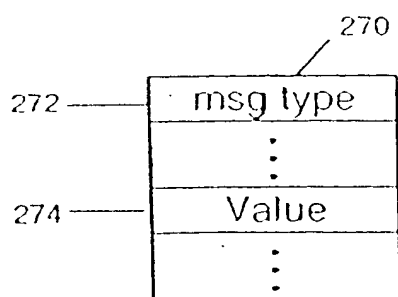


FIG. 16d is a schematic diagram of a message structure 270. The message structure 270 is a vertical rectangle divided into four horizontal sections. The top section is labeled "msg type" and is pointed to by reference numeral 272. The second section contains a vertical ellipsis (three dots). The third section is labeled "Value" and is pointed to by reference numeral 274. The bottom section contains another vertical ellipsis (three dots). Reference numeral 270 points to the top-right corner of the entire structure.

FIG. 17

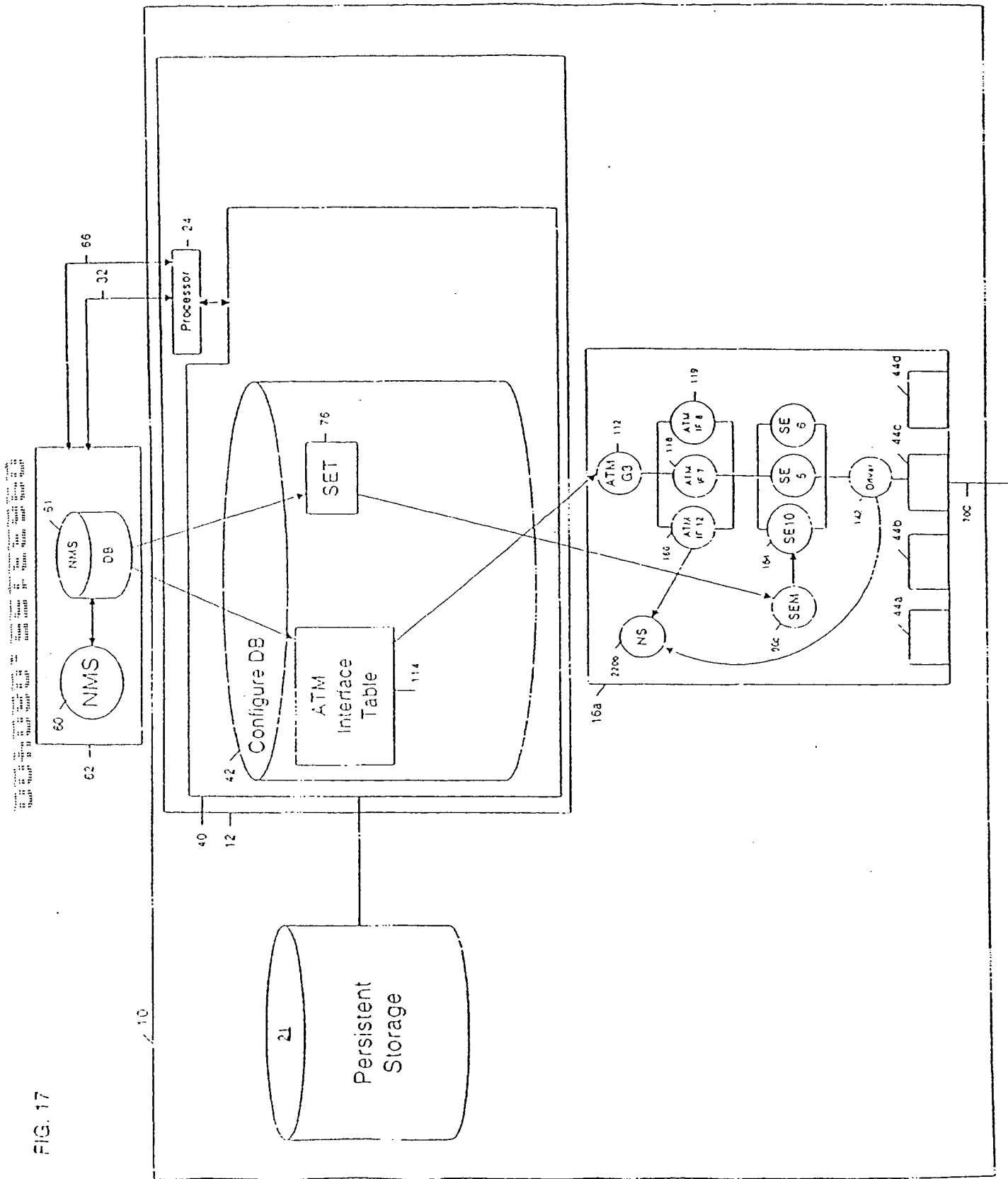


FIG. 18

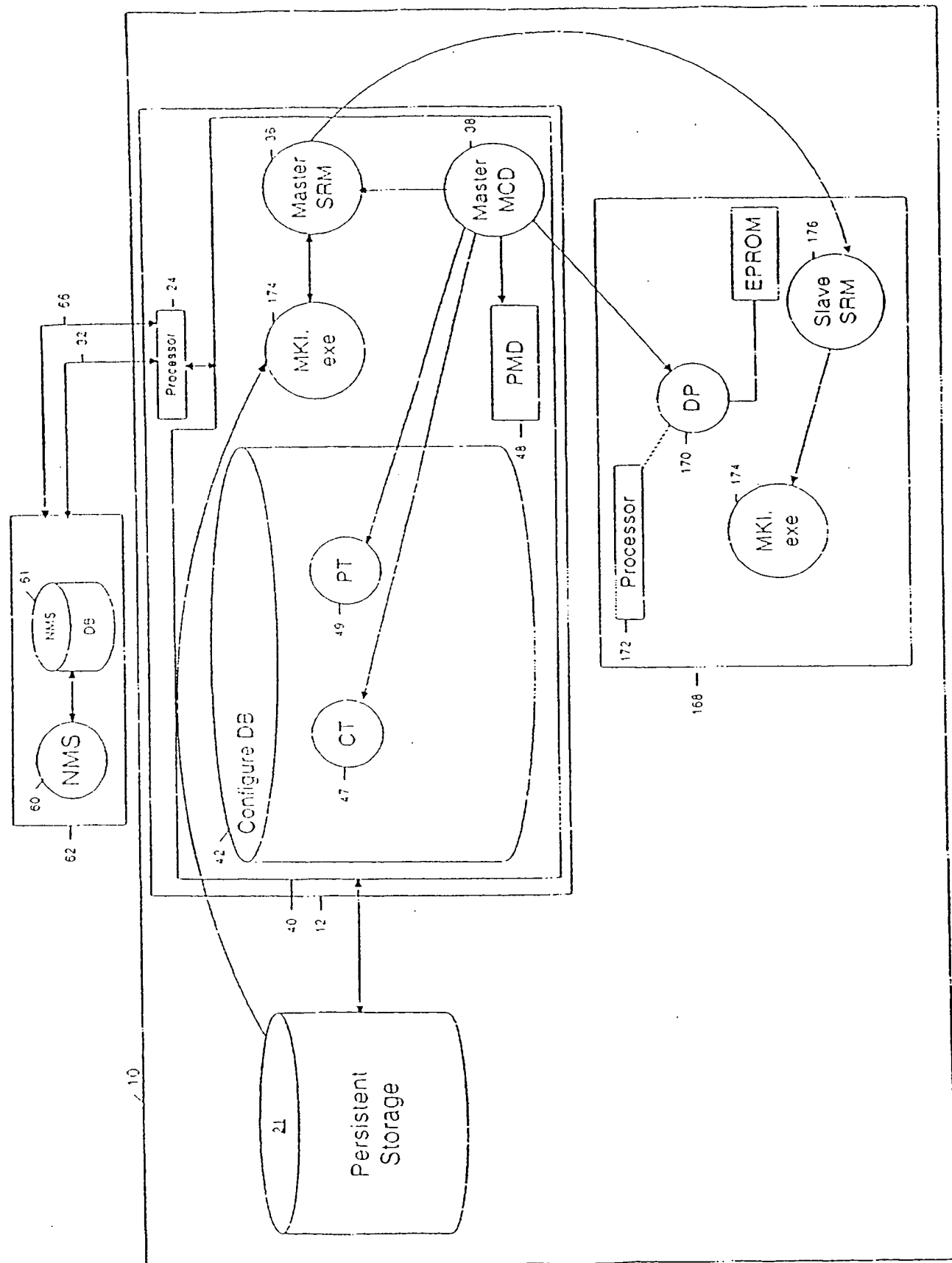


FIG. 19

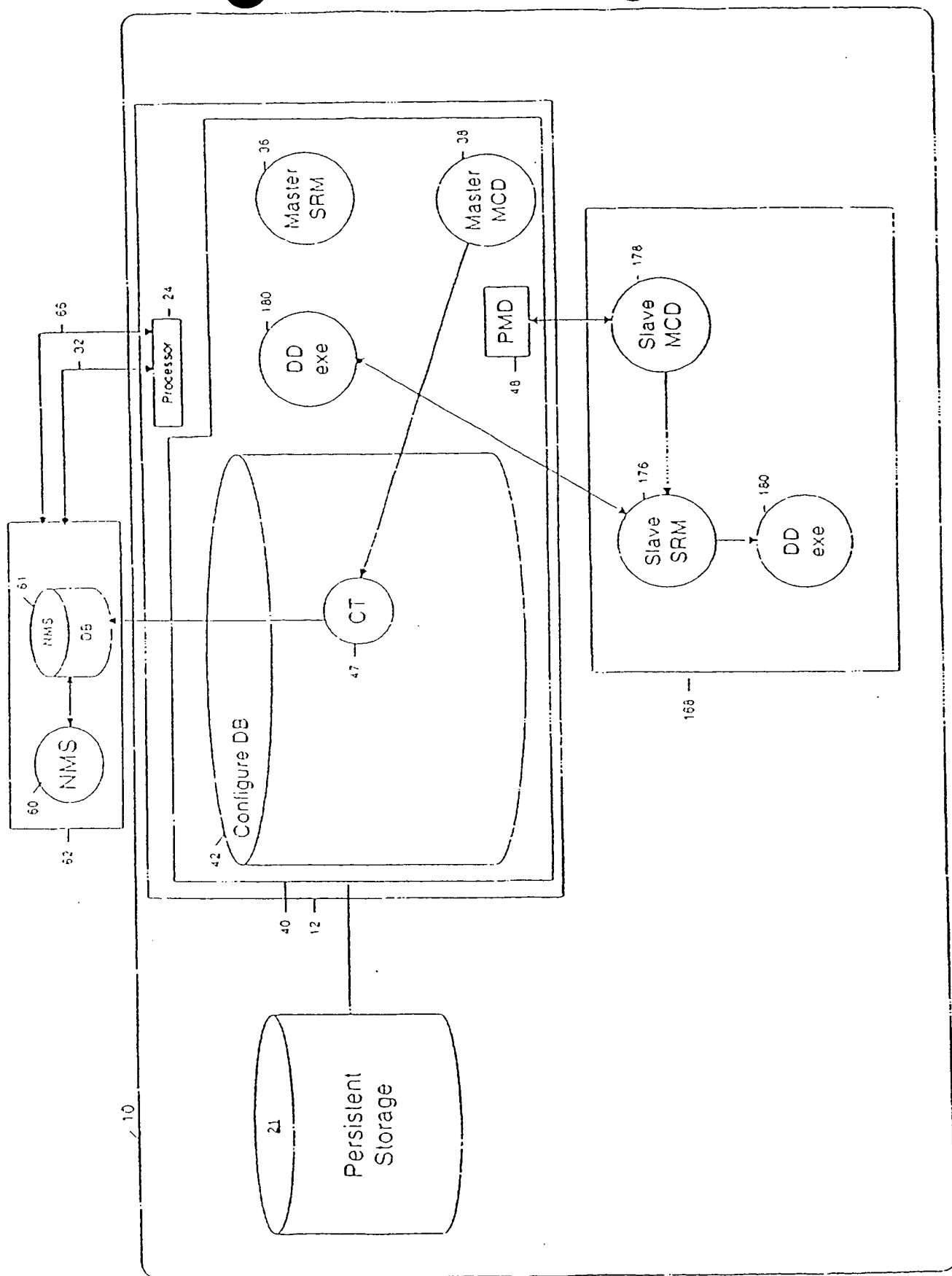
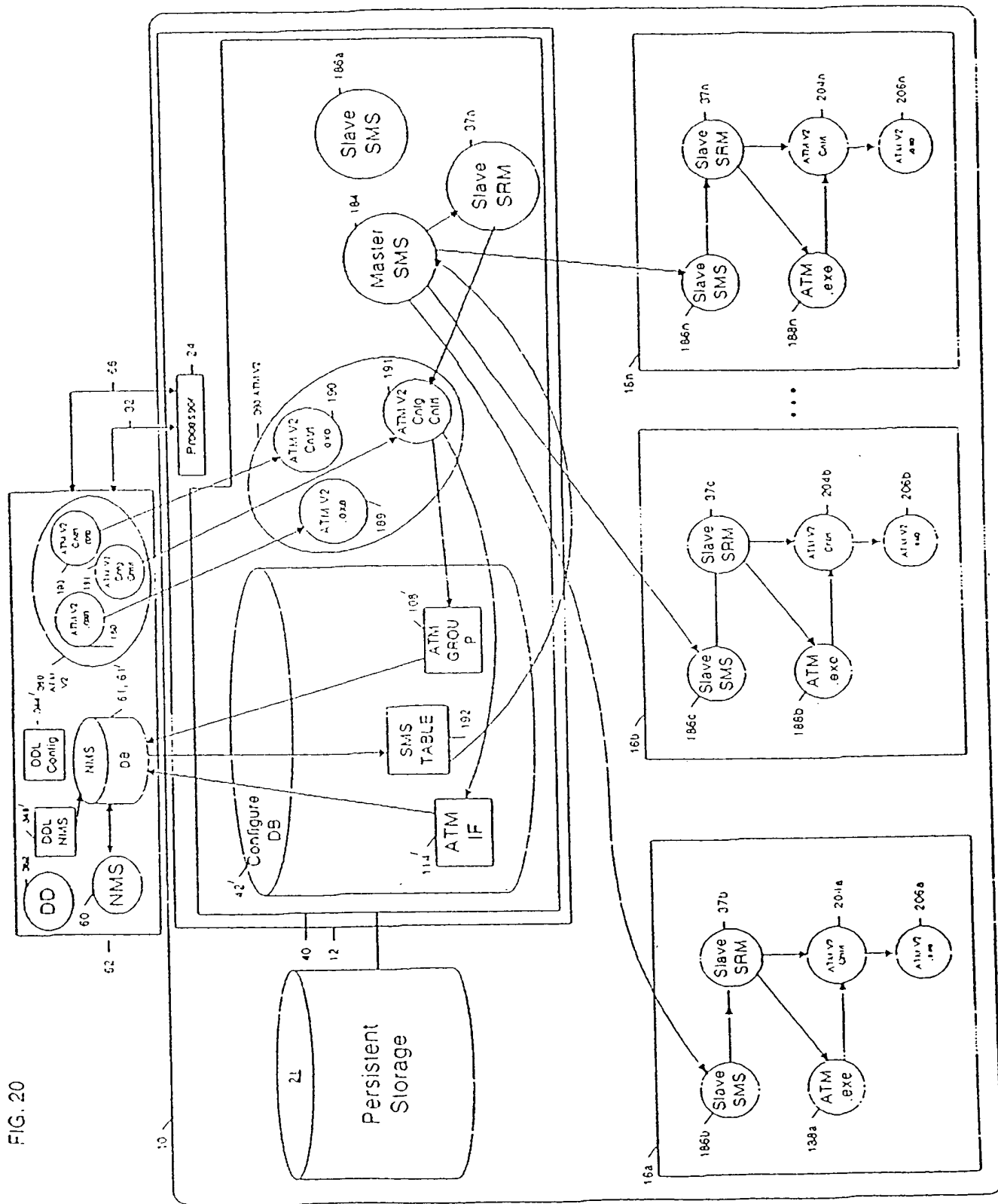


FIG. 20



1.0.0.1
Major Revision Level
Minor Revision Level
Service Update Level
Subsystem
Compatibility Level

FIG. 21

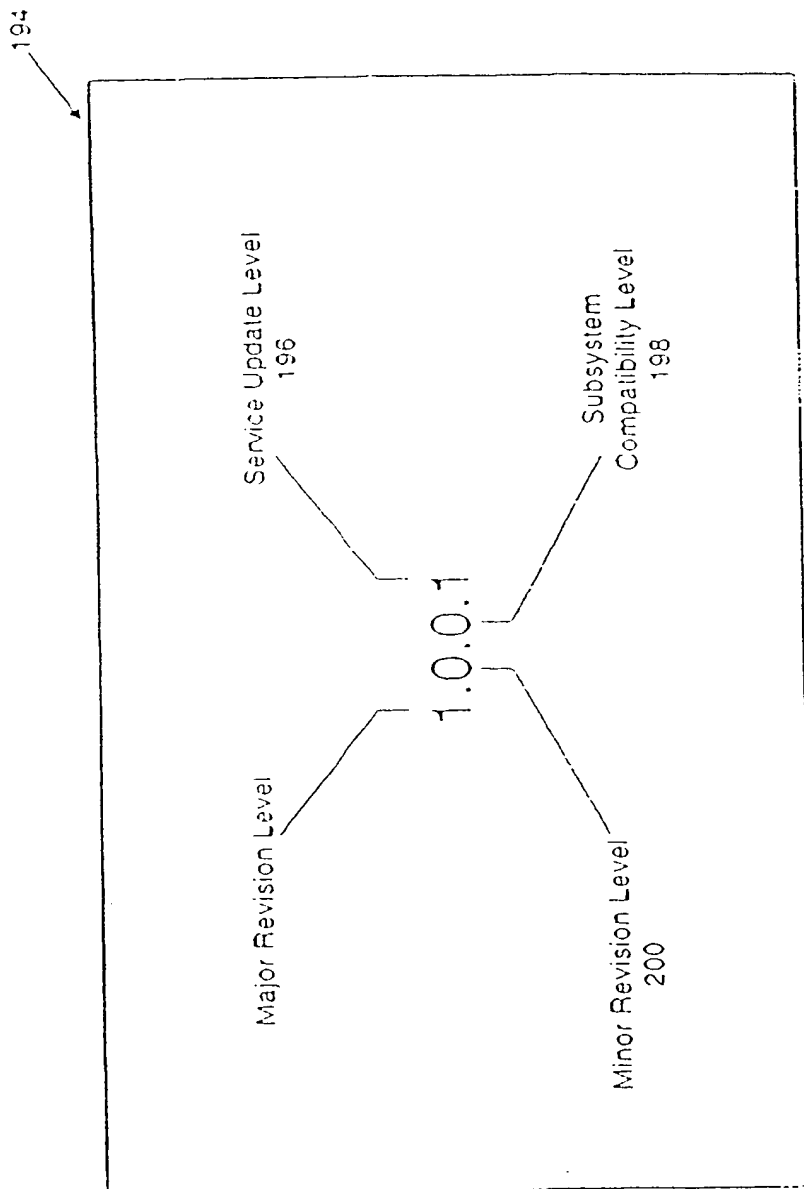


FIG. 22

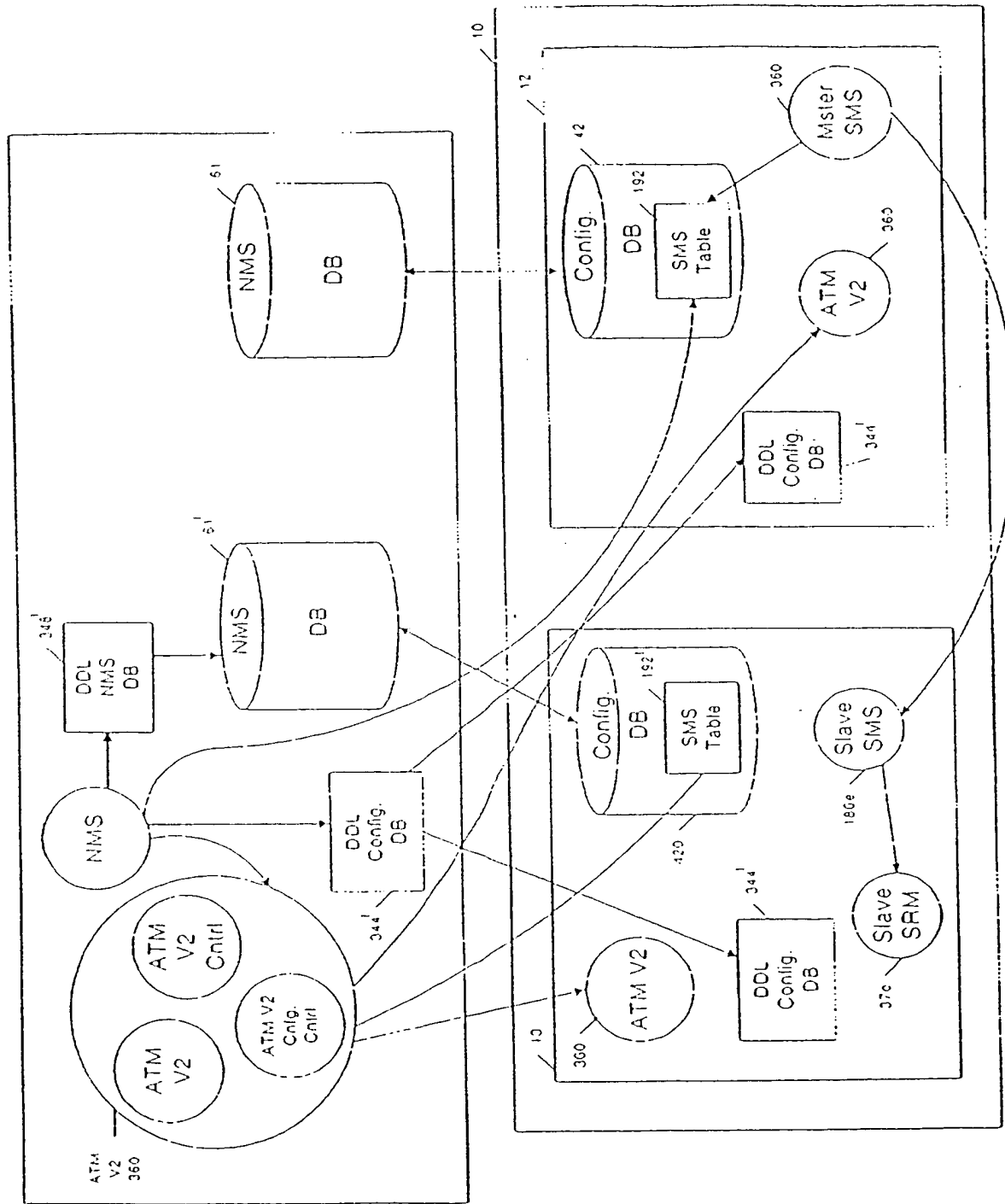


FIG. 23

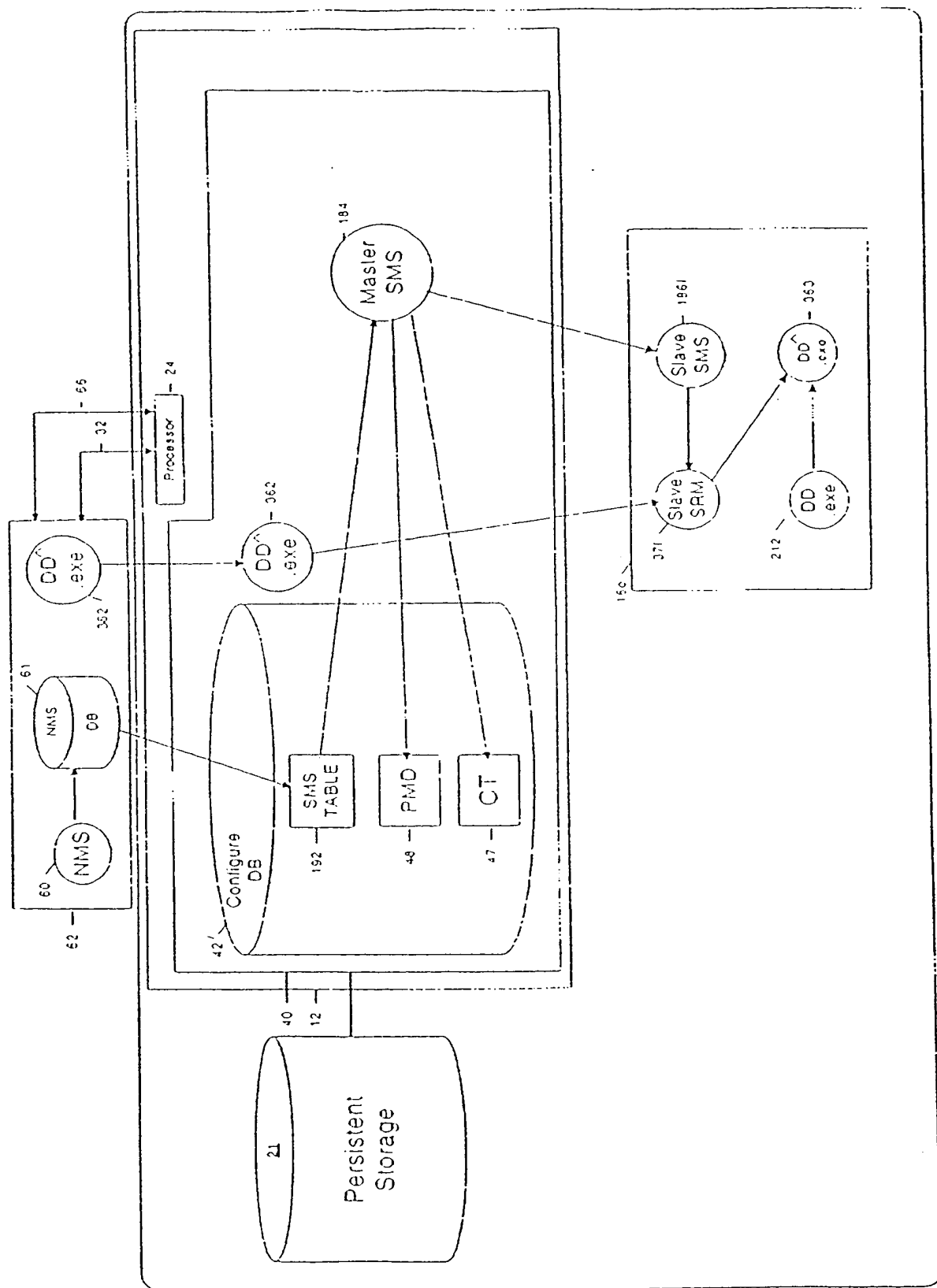


FIG. 24

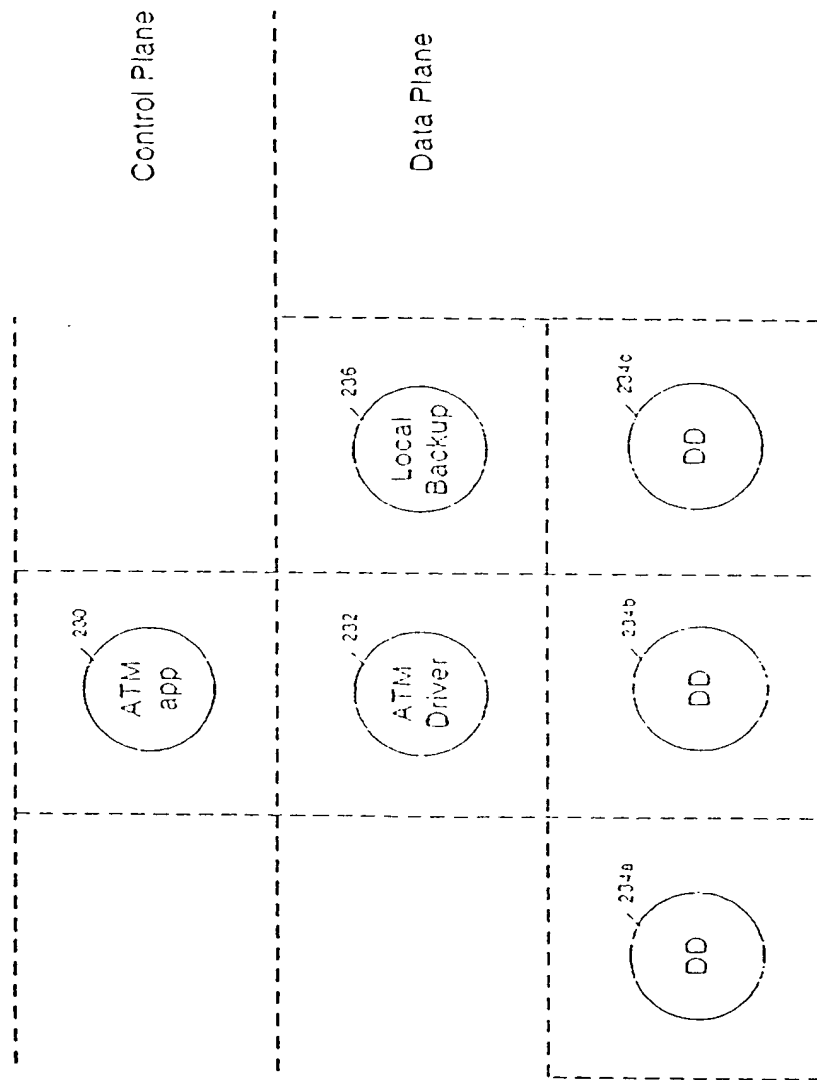


FIG. 25

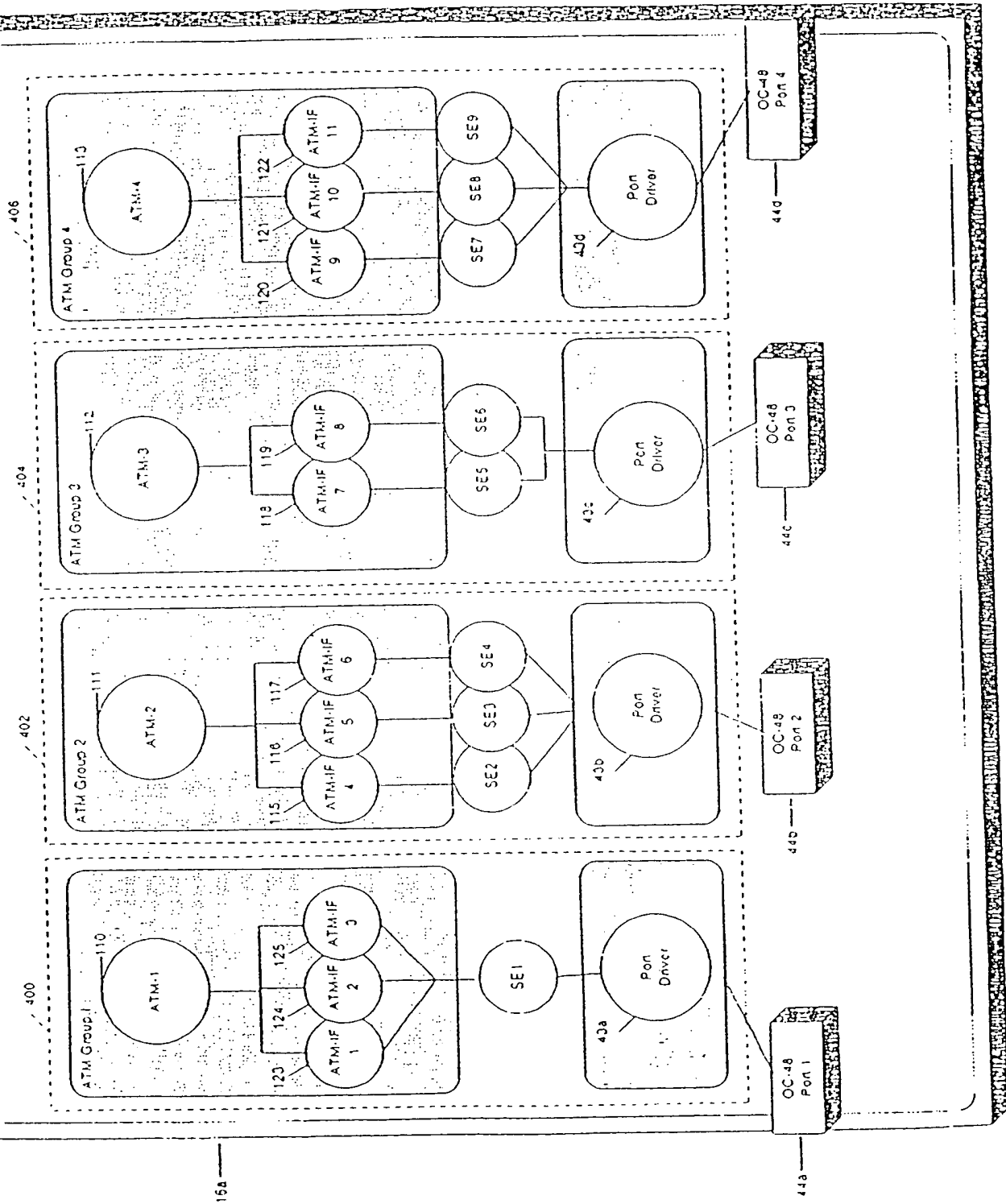


FIG. 26

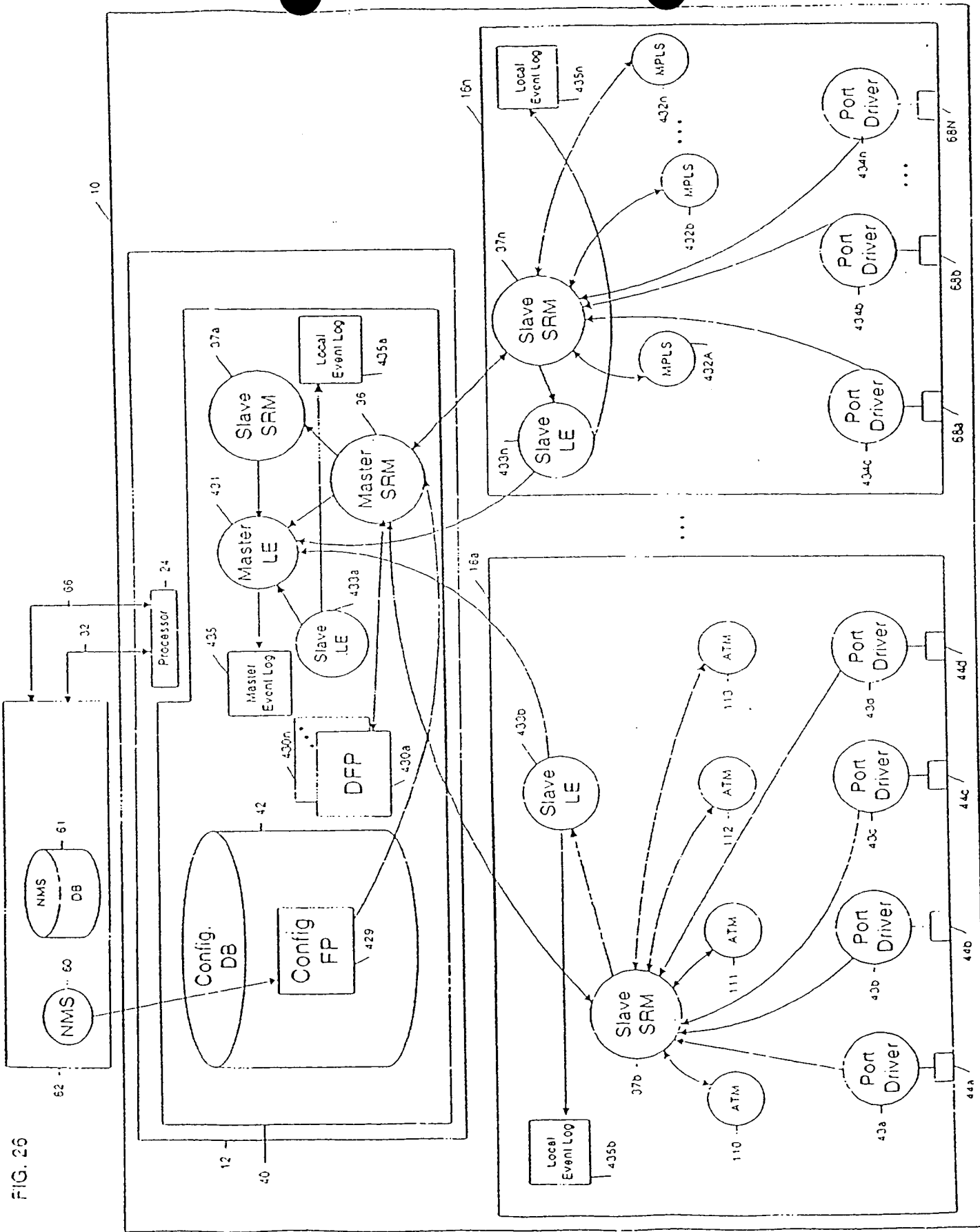


FIG. 27

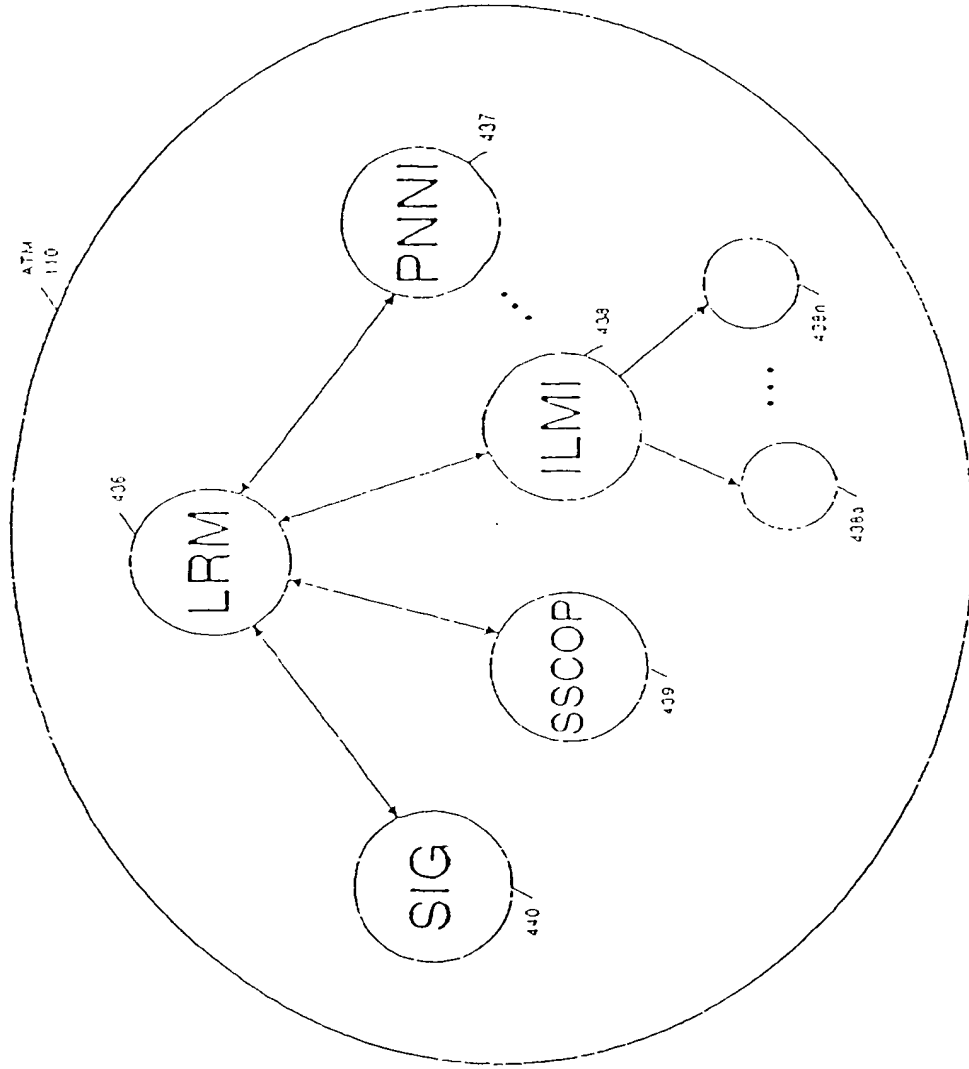


FIG. 28

FIG. 28

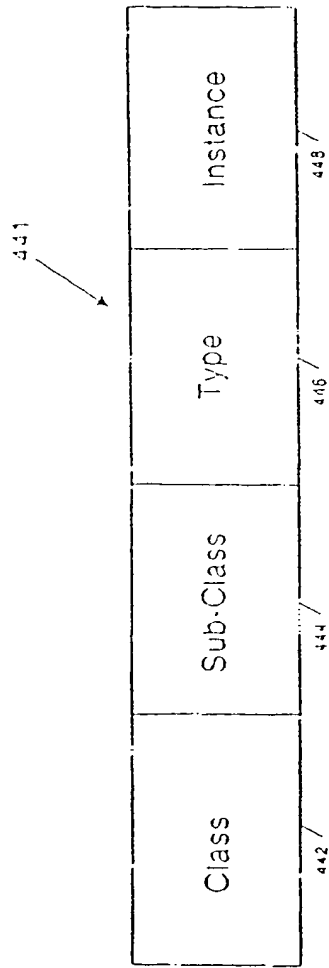


FIG. 29

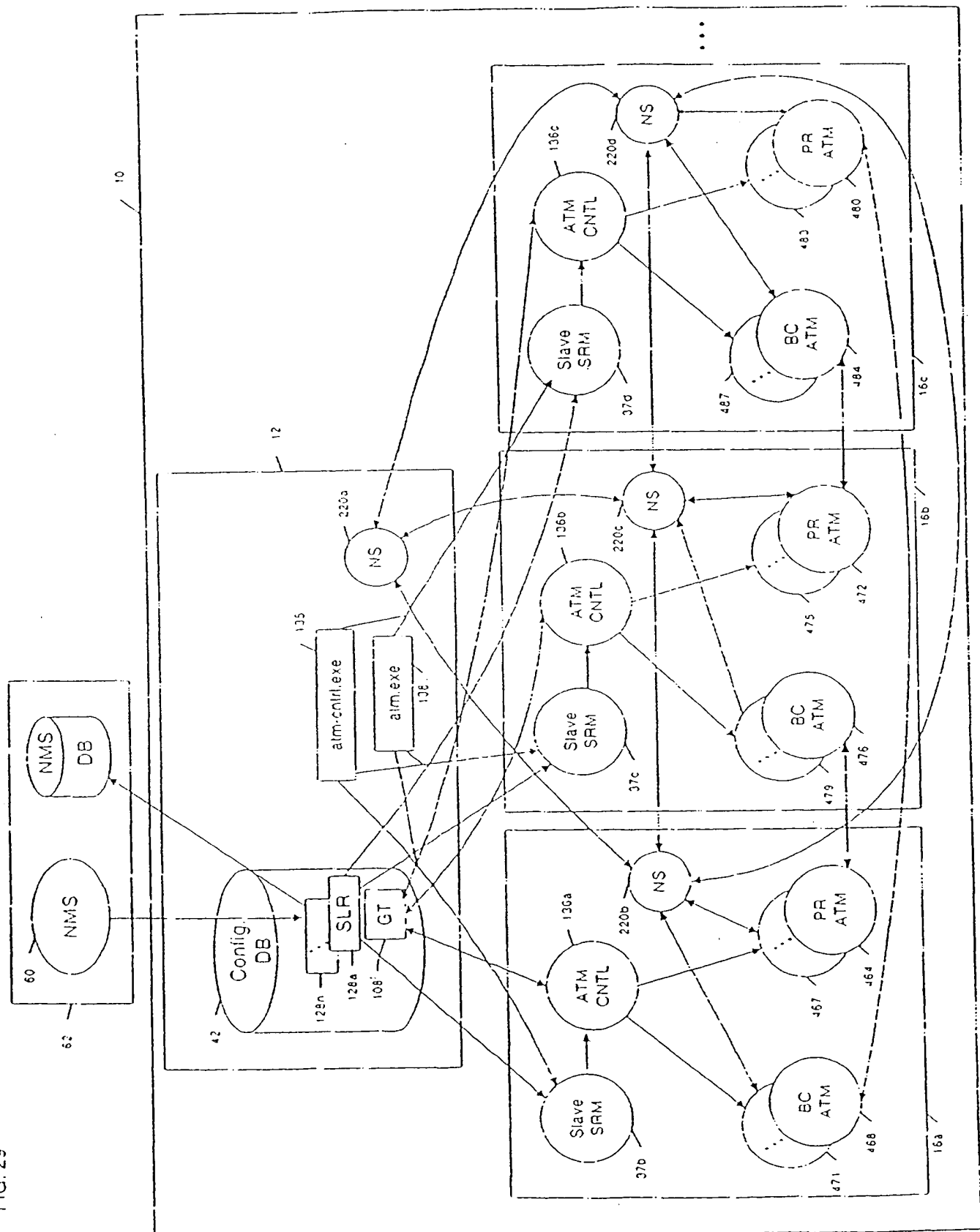


FIG.30

Group Table 108'

	Group #	Primary Card LID	Backup Card LID	...
450 —	1	30	31	
451 —	2	30	31	
452 —	3	30	31	
453 —	4	30	31	
454 —	5	31	32	
455 —	6	31	32	
456 —	7	31	32	
457 —	8	31	32	
458 —	9	32	30	
459 —	10	32	30	
460 —	11	32	30	
461 —	12	32	30	
	⋮	⋮	⋮	⋮

447

449

Fig. 31a

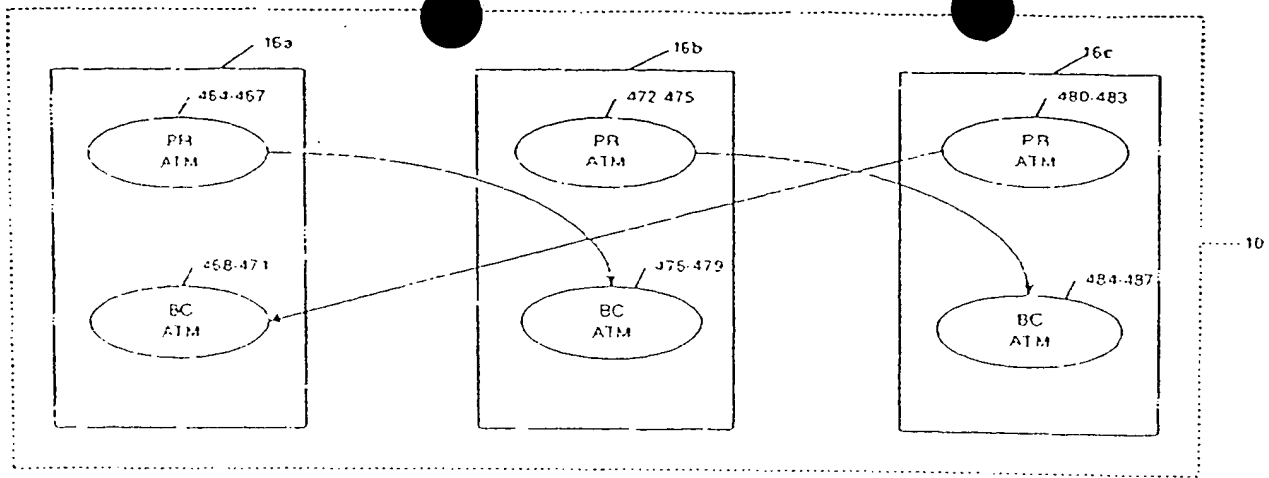


Fig. 31b

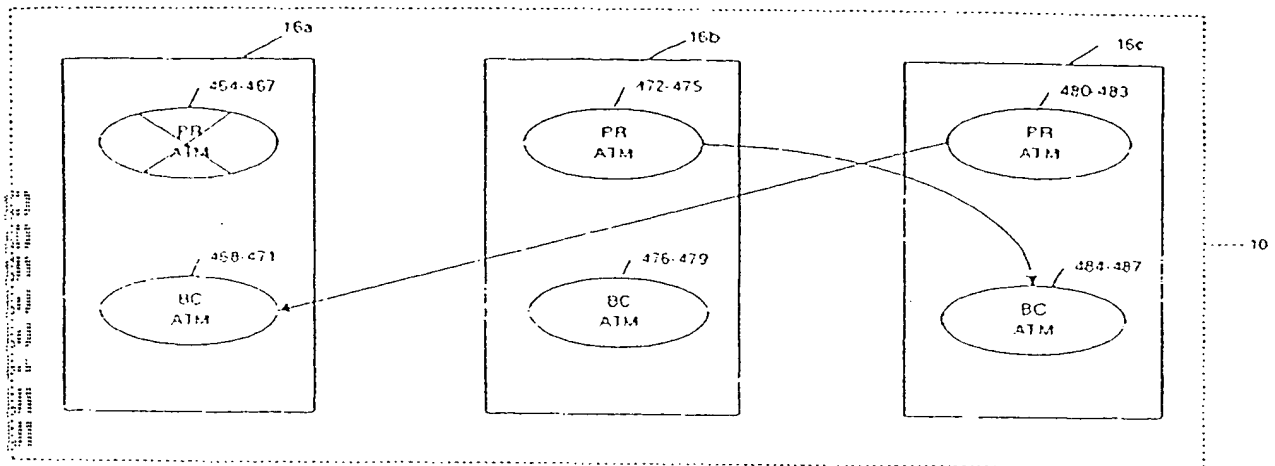


Fig. 31c

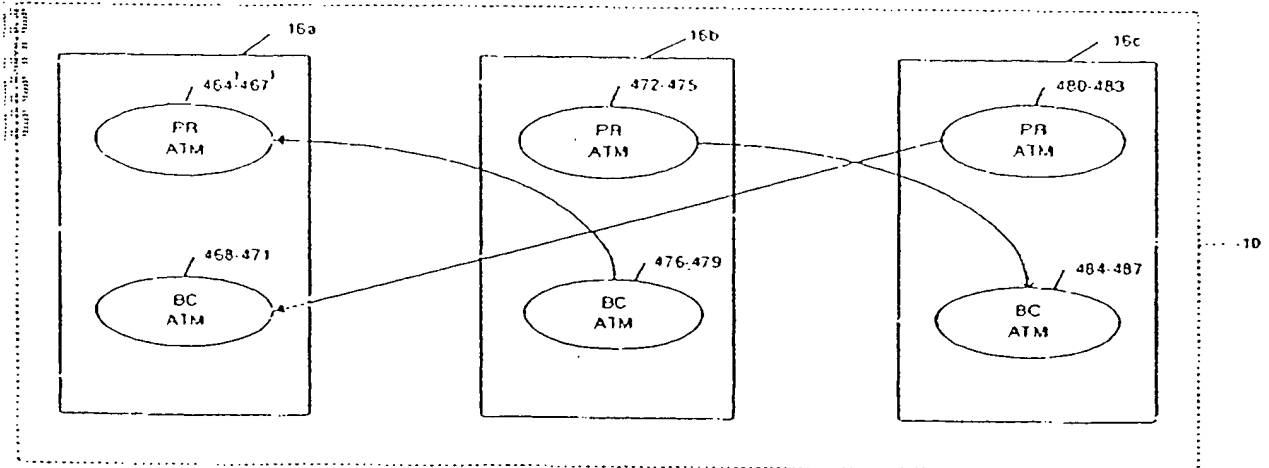


Fig. 32a

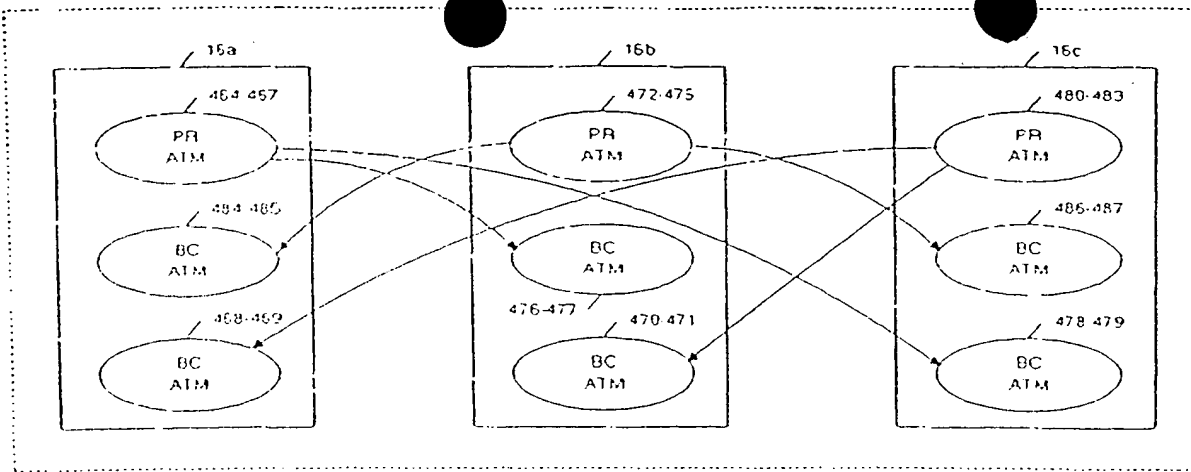


Fig. 32b

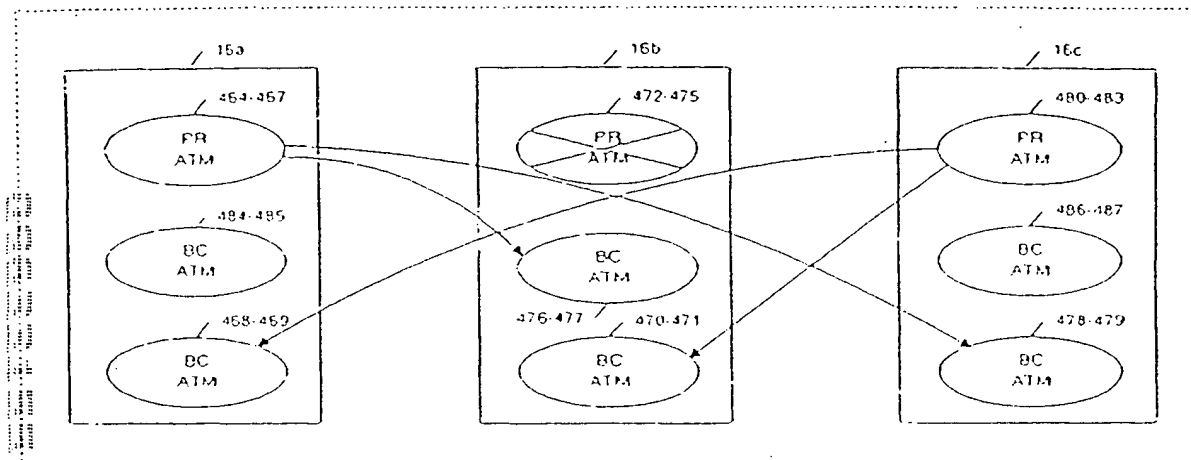


Fig. 32c

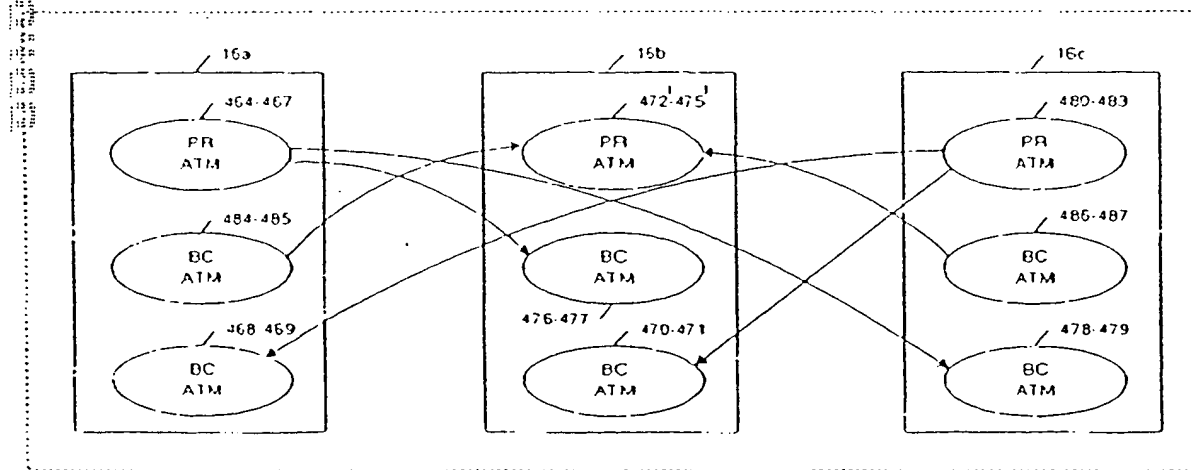


FIG. 33a

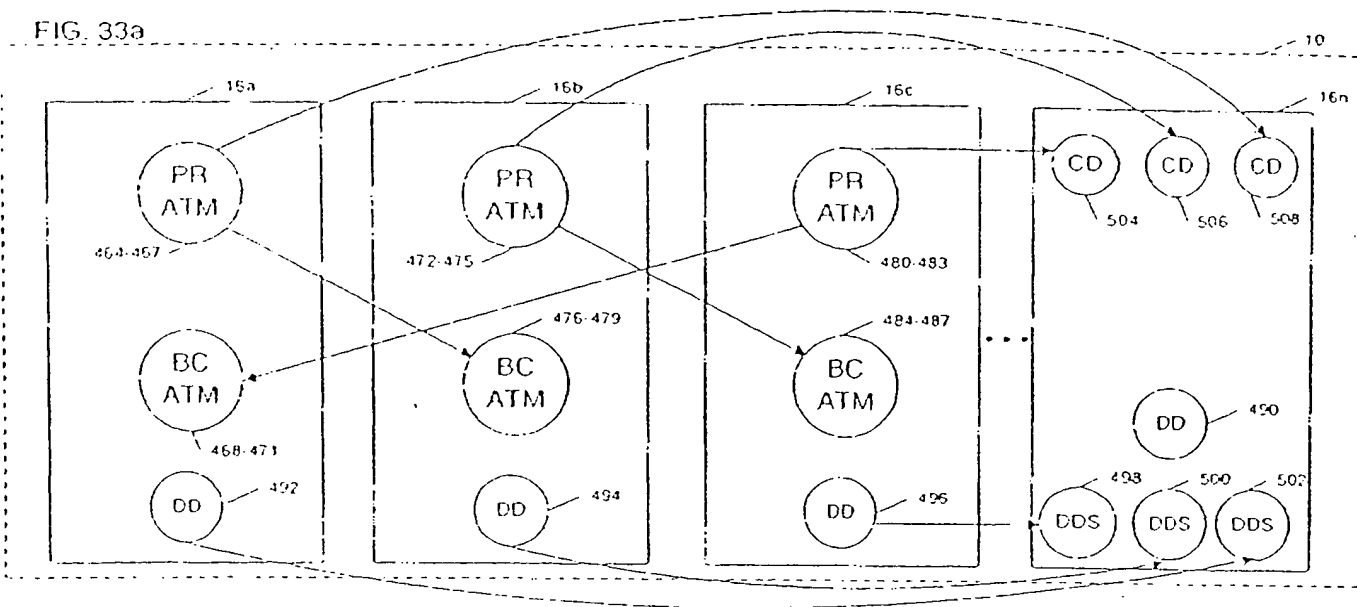


FIG. 33b

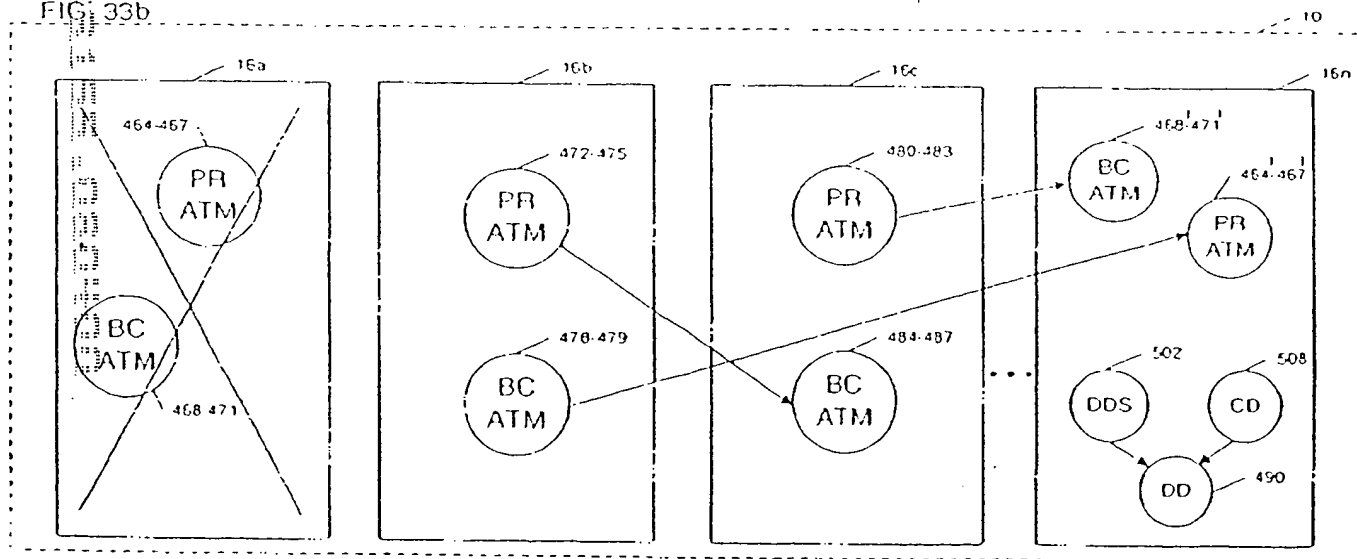


FIG. 33c

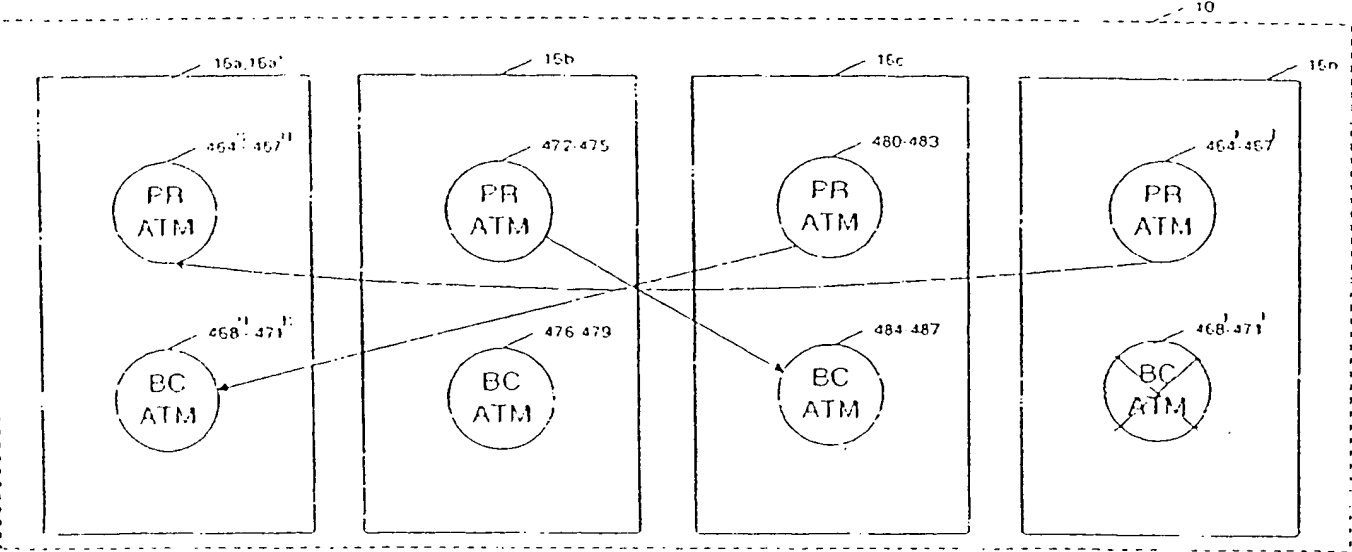


FIG. 33d

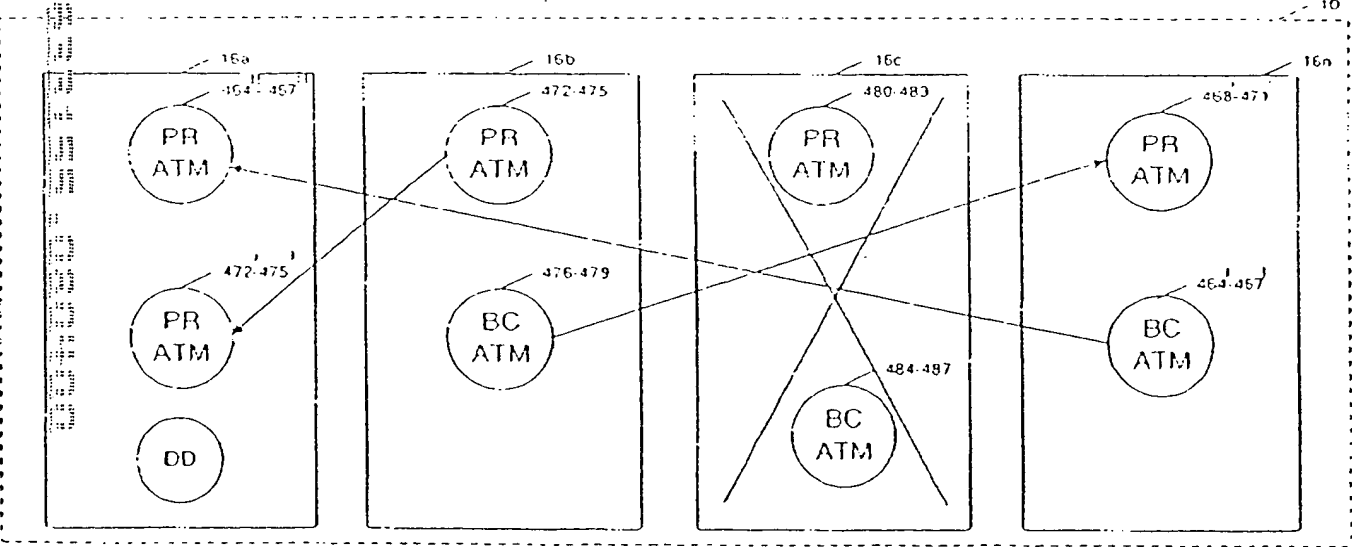
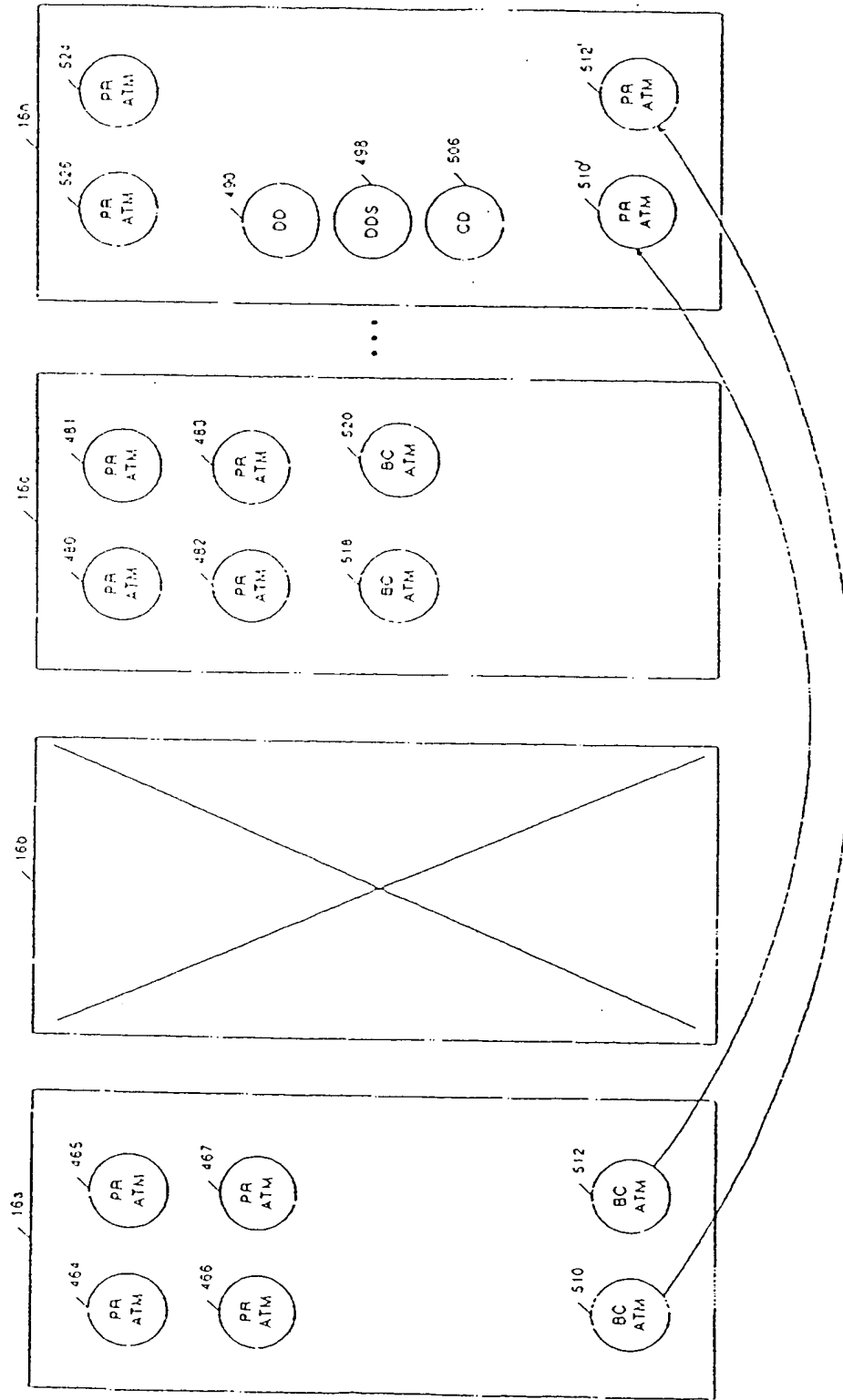


FIG. 34b



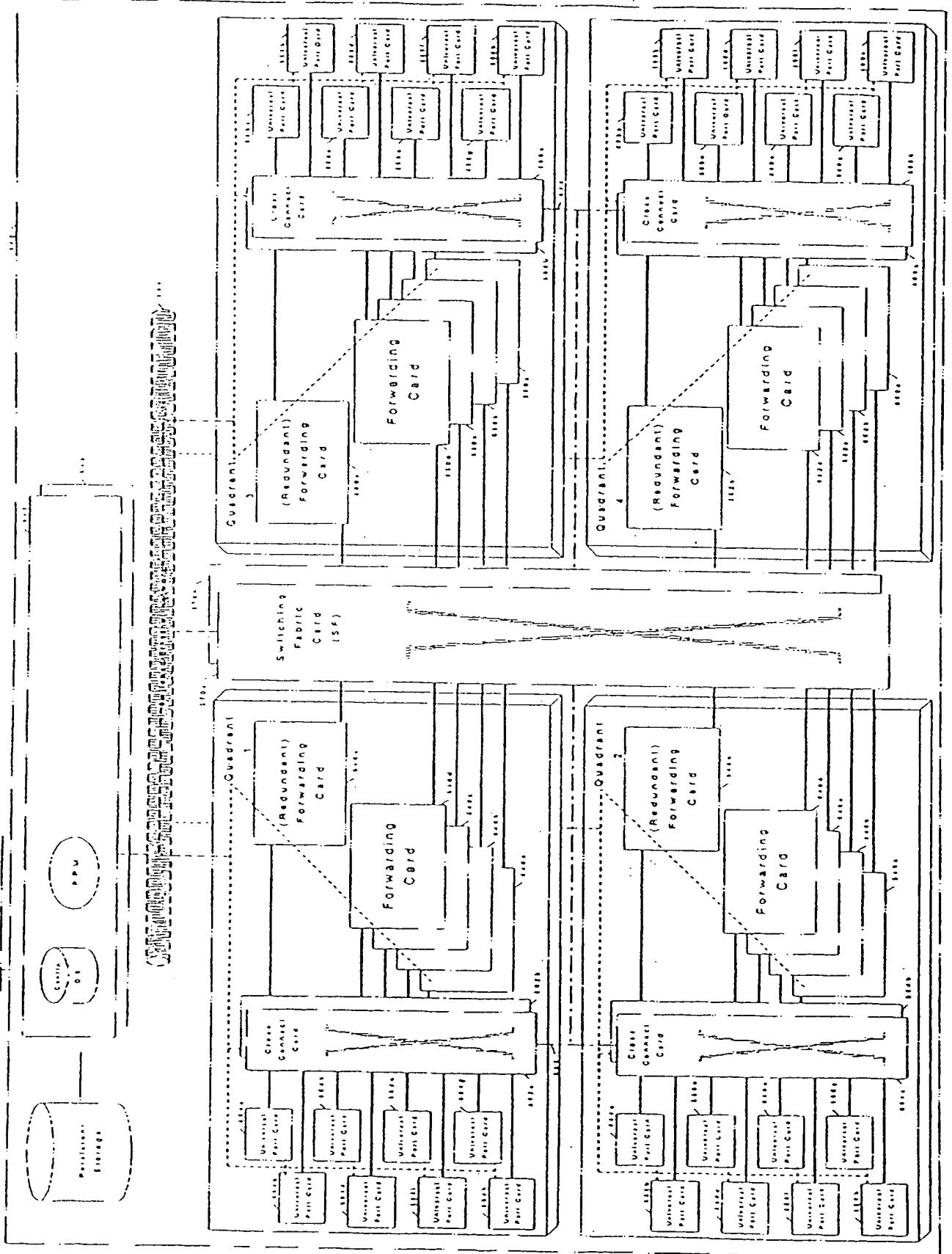


FIG. 35

FIG. 36

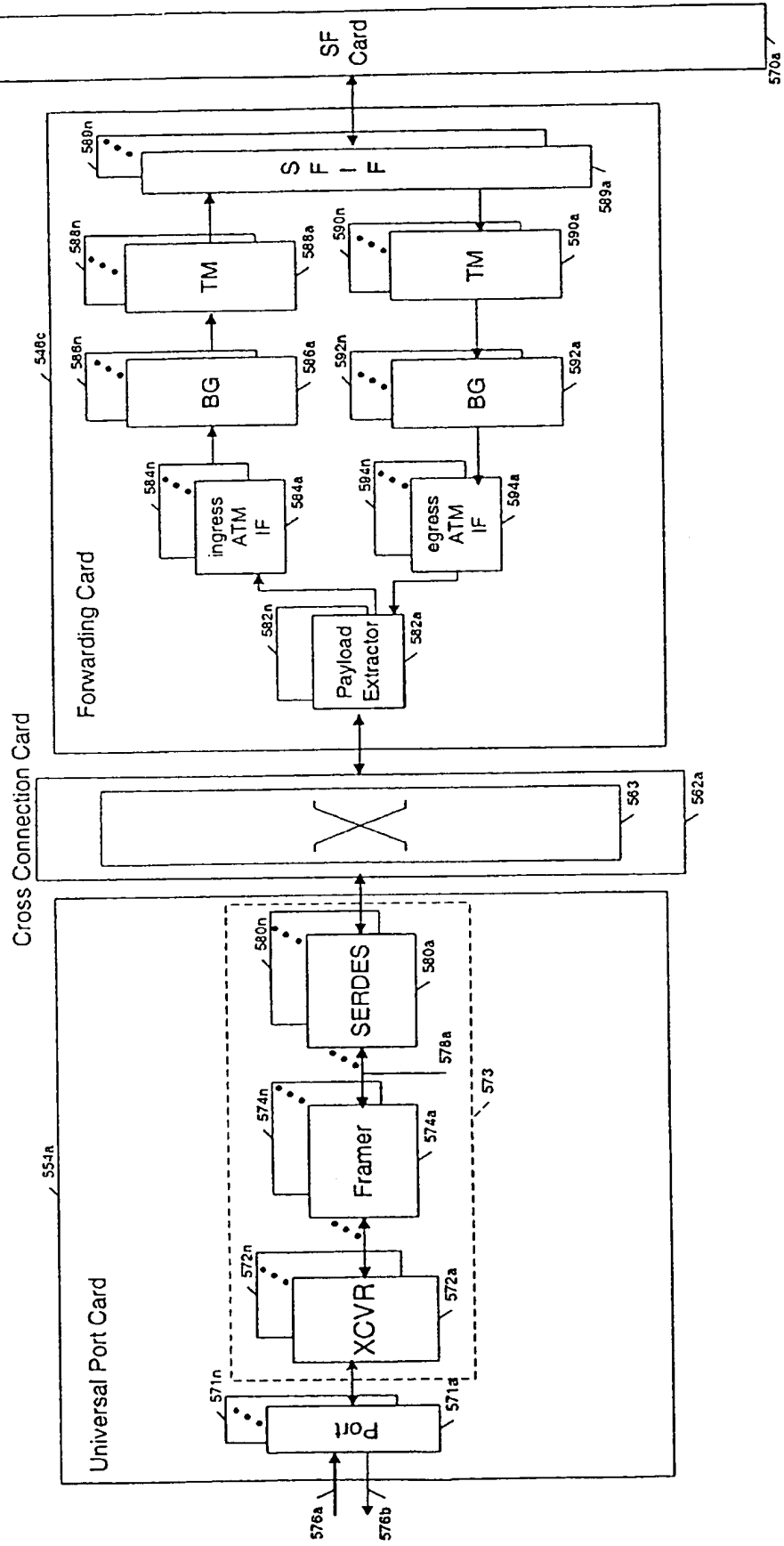


FIG. 37

FIG. 37 is a block diagram of a network management system (NMS) architecture. The system includes a Persistent Storage (21) connected to a Path Manager (597) in the Universal Port Card (554a). The Path Manager is connected to a CCM (605) in the Cross-Connection Card (562a). The CCM is connected to a Conn Pr Table (601) in the Cross-Connection Card. The Conn Pr Table is connected to a TSE (563) in the Cross-Connection Card. The TSE is connected to a SEM (961) in the Forwarding Card (546c). The SEM is connected to a PPM (599) in the Forwarding Card. The PPM is connected to a SET (761) in the Processor (542). The SET is connected to a Path Table (600) in the Processor. The Path Table is connected to a PP (603) in the Processor. The PP is connected to a Config DB (42) in the Processor. The Config DB is connected to an NMS (60) in the Processor. The NMS is connected to an NMS DB (51) in the Processor. The NMS DB is connected to the Processor. The Processor is connected to the Persistent Storage. The Processor is also connected to the Universal Port Card, the Cross-Connection Card, and the Forwarding Card.

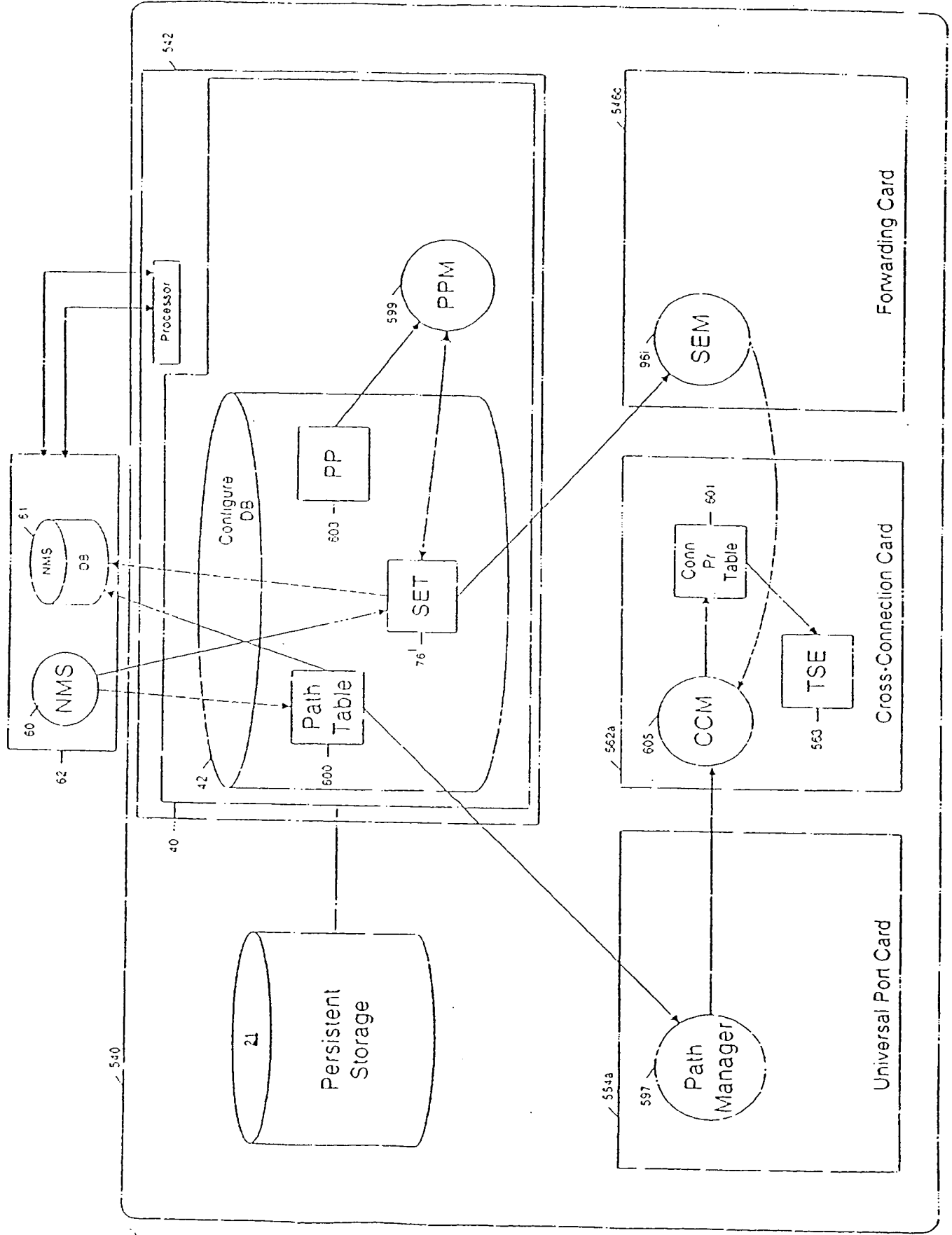


FIG. 38

Path Table 600

602

Path LID	UP Port LID	Time Slot	# of Time Slots	...
1666	1231	4	3	
•	•	•	•	•
•	•	•	•	•
•	•	•	•	•

FIG. 39

Service End Point Table 76'

SE #	Q #	FC LID	FC Slice	FC Time Slot	Path PID	...
878	1				1666	
:	:	:	:	:	:	:
:	:	:	:	:	:	:

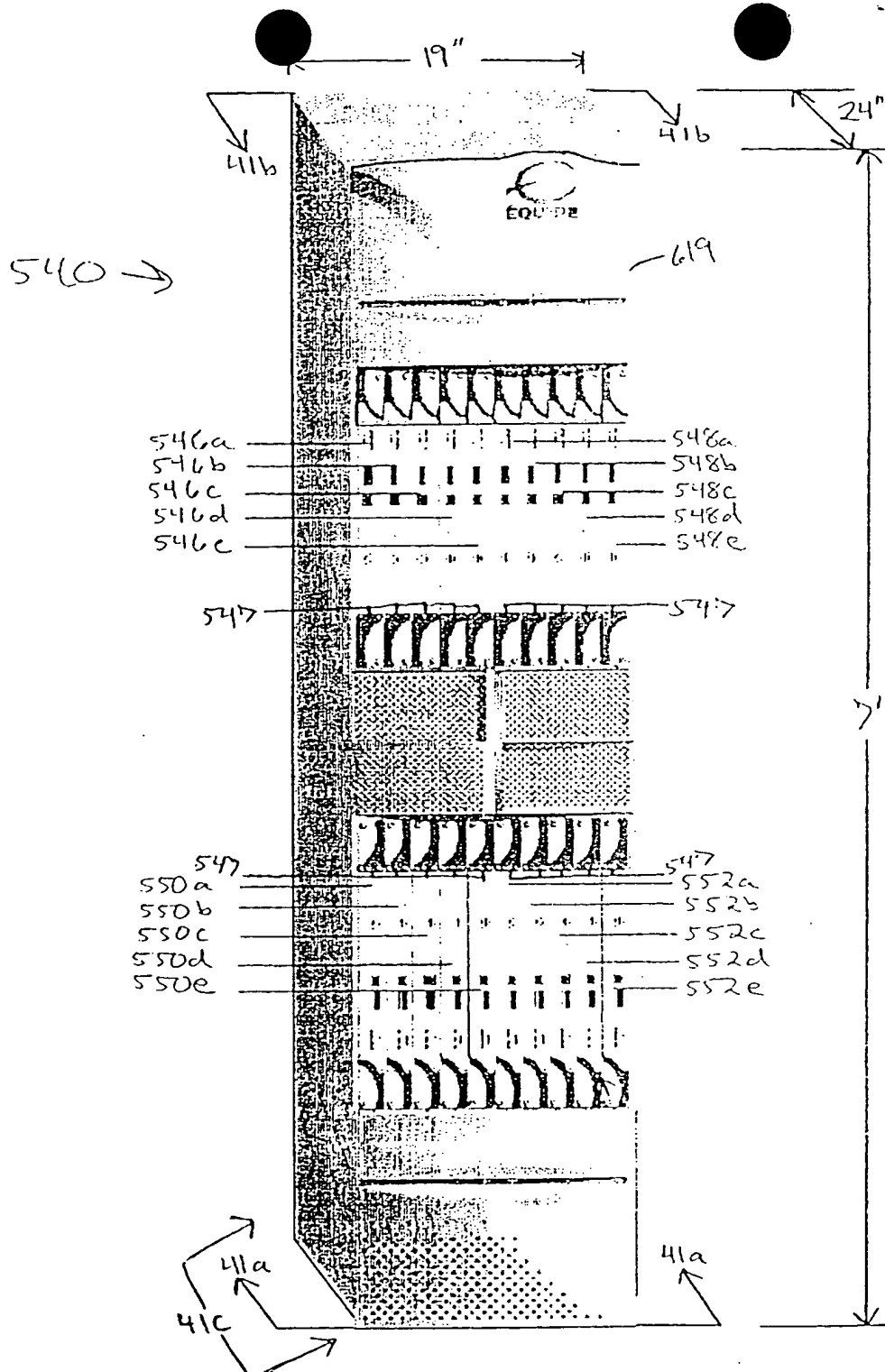


Fig. 40

FIG. 41a

Front

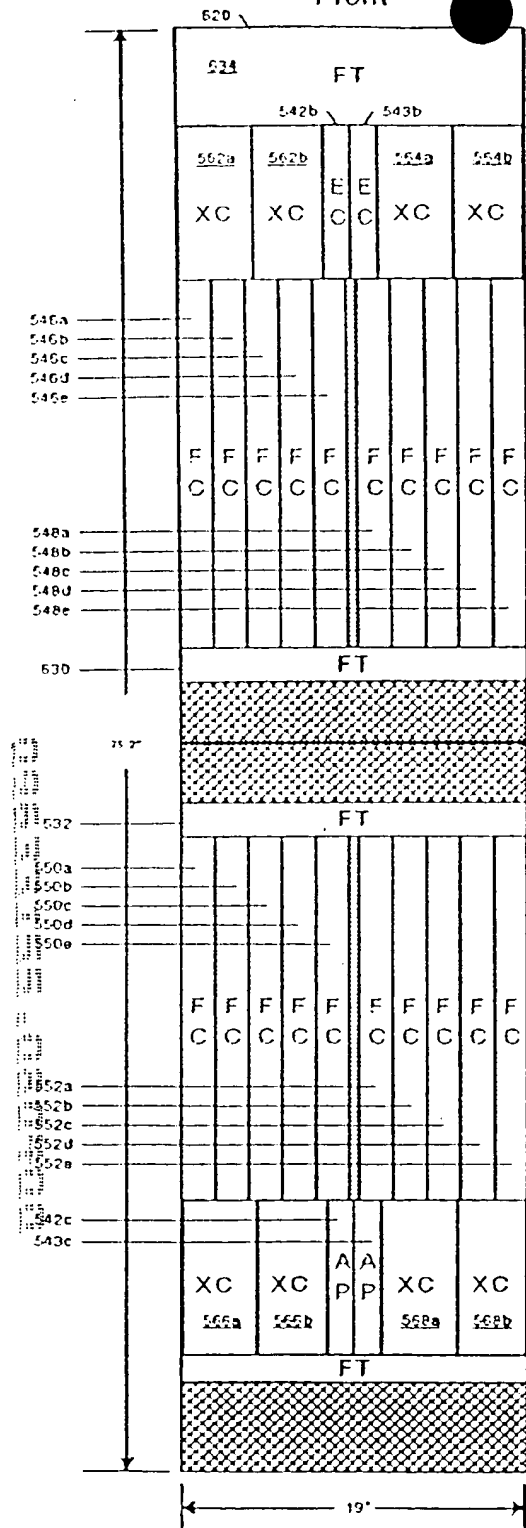


FIG. 41b

Back

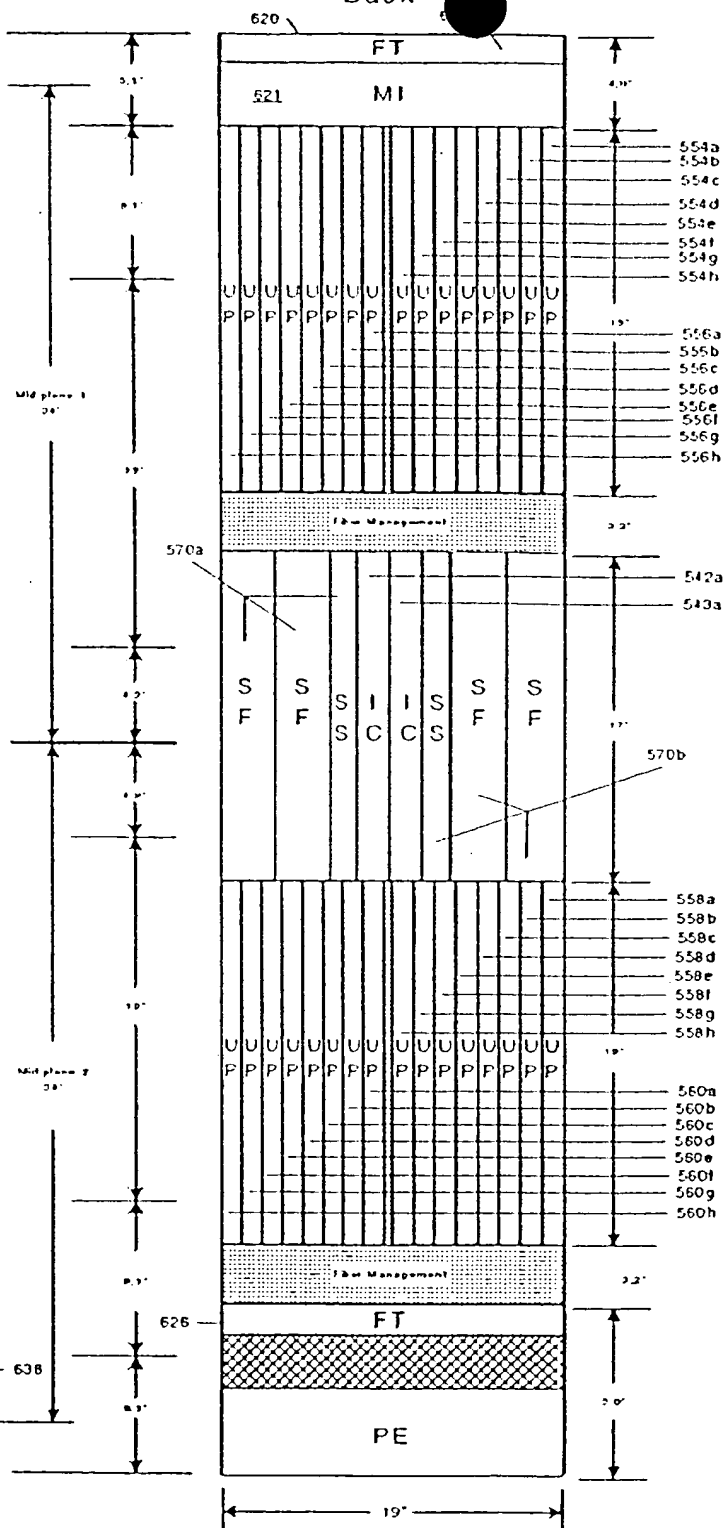


FIG. 41c
Side

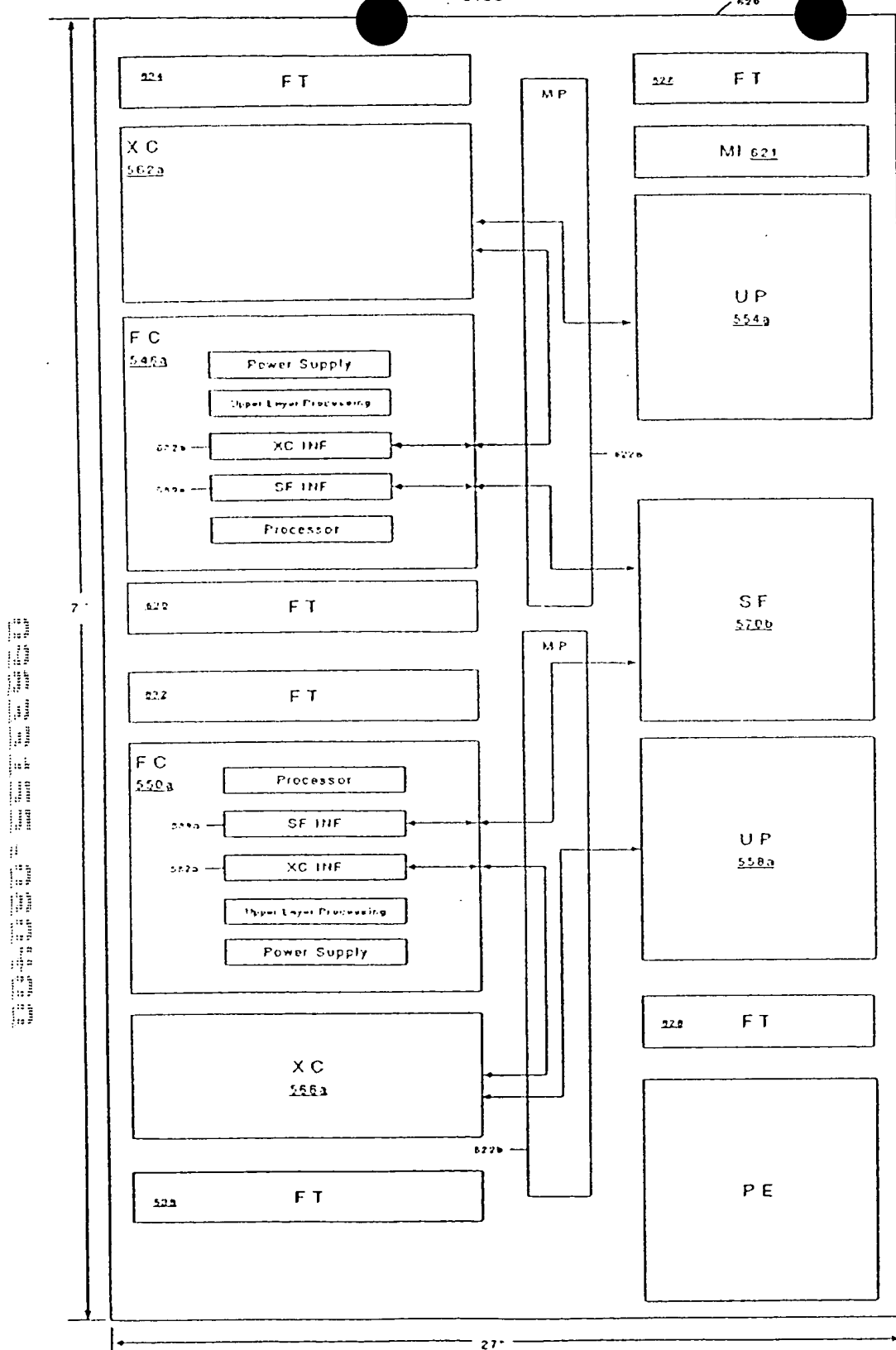


Fig. 42

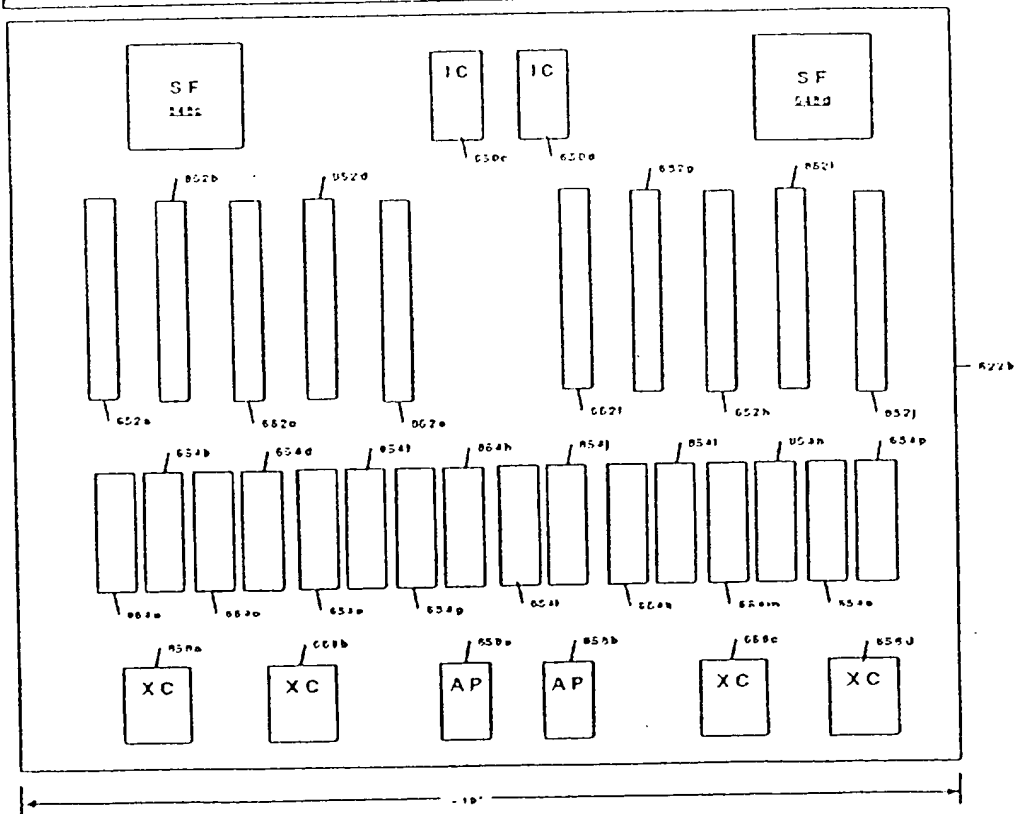
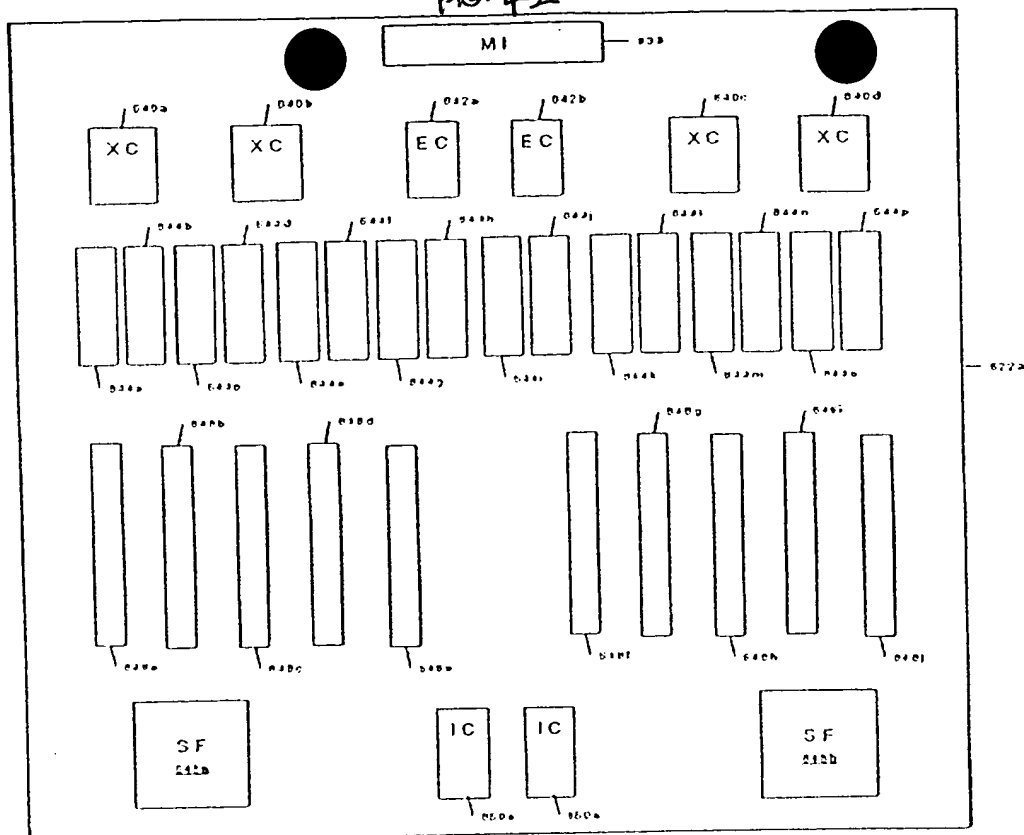
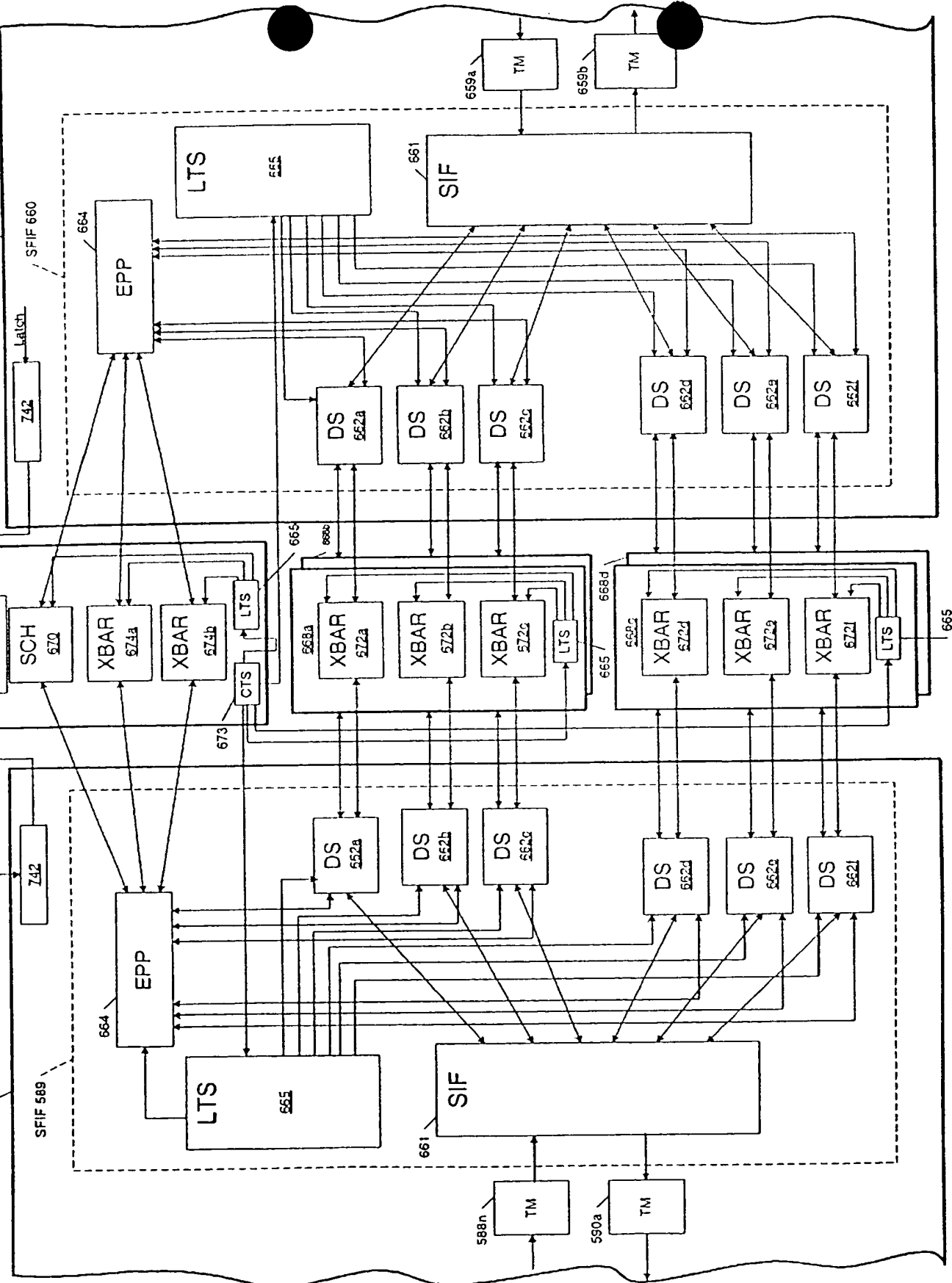


FIG. 43

548c Latch

550a



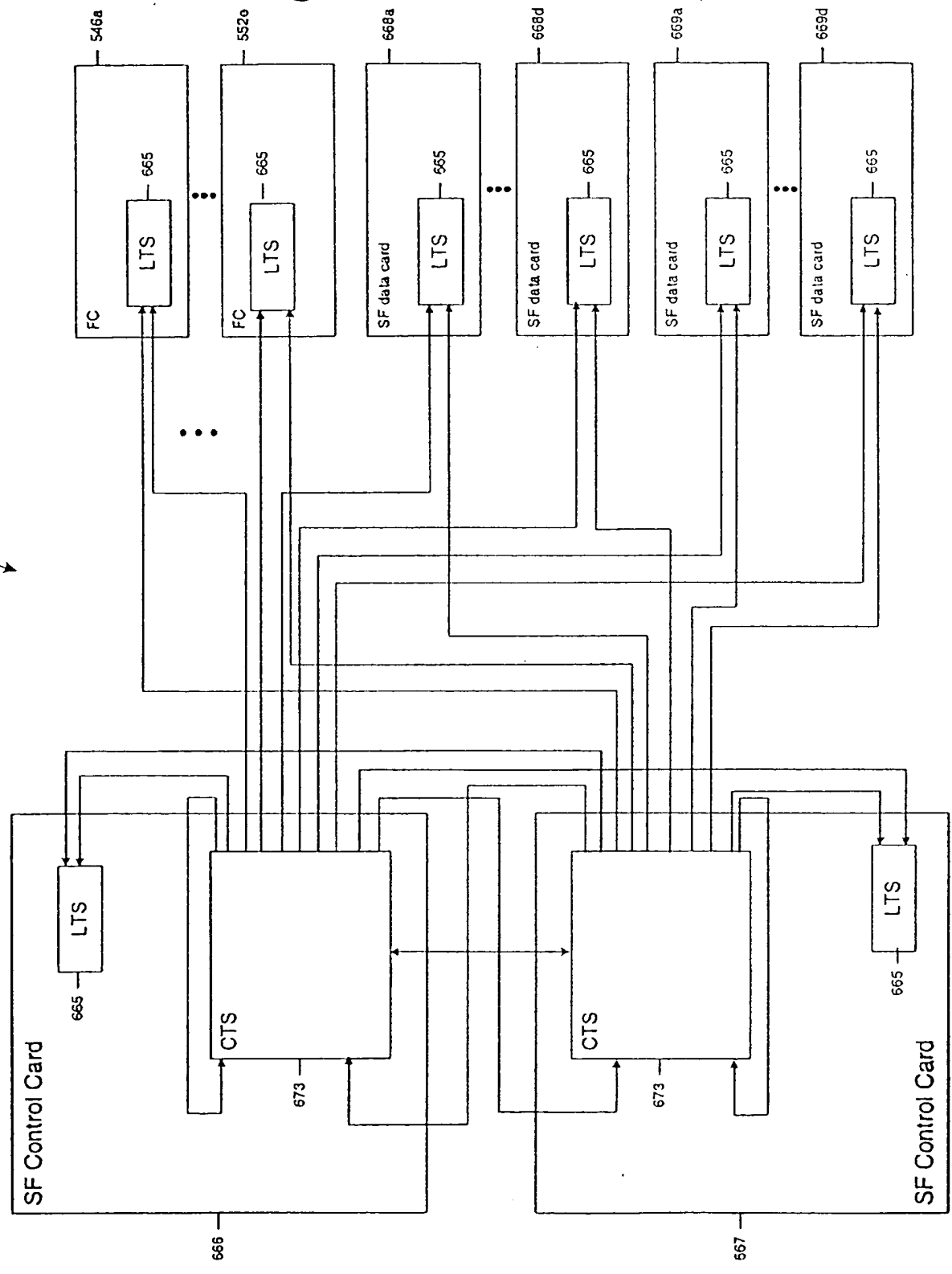
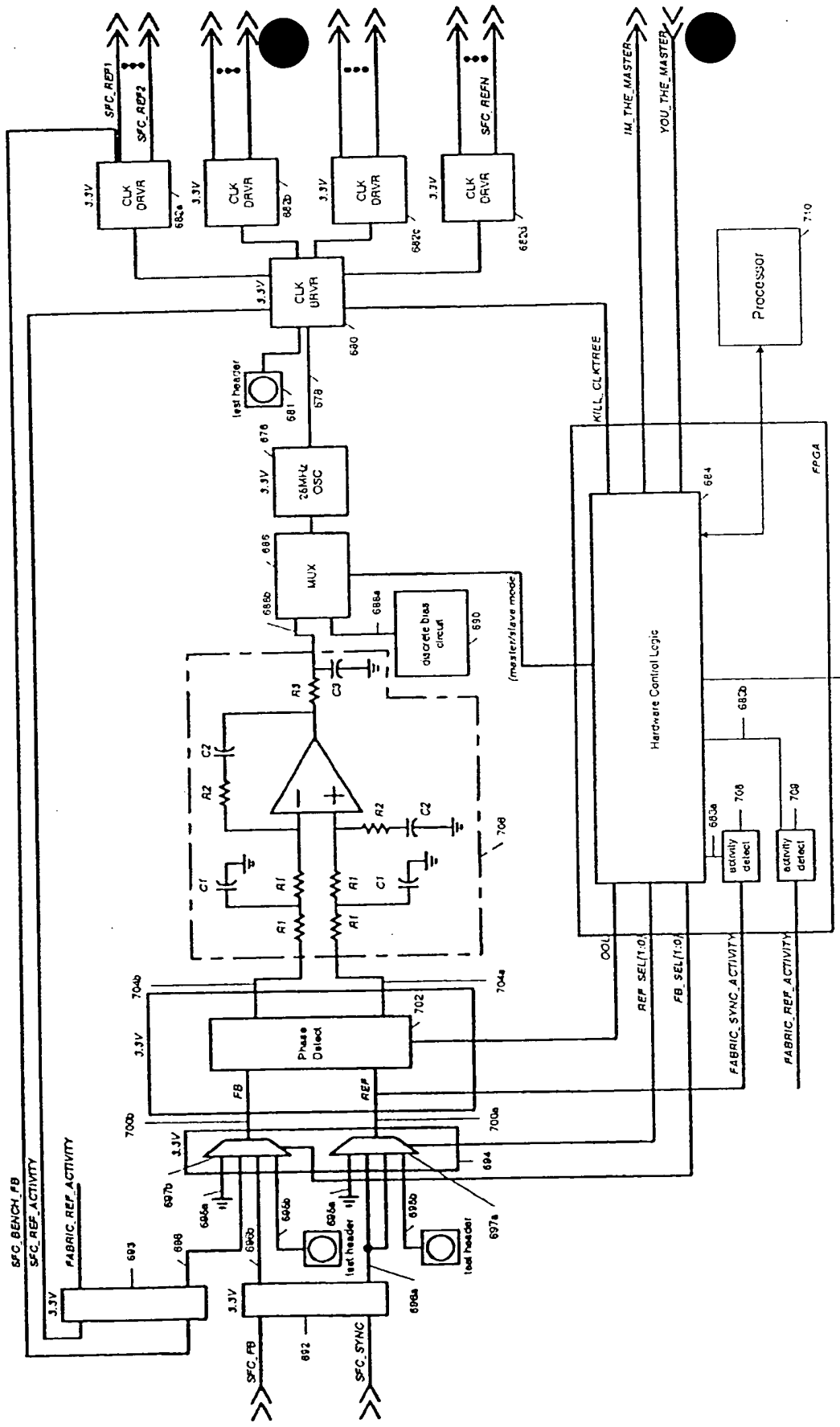


FIG. 44

CTS 673

FIG. 45



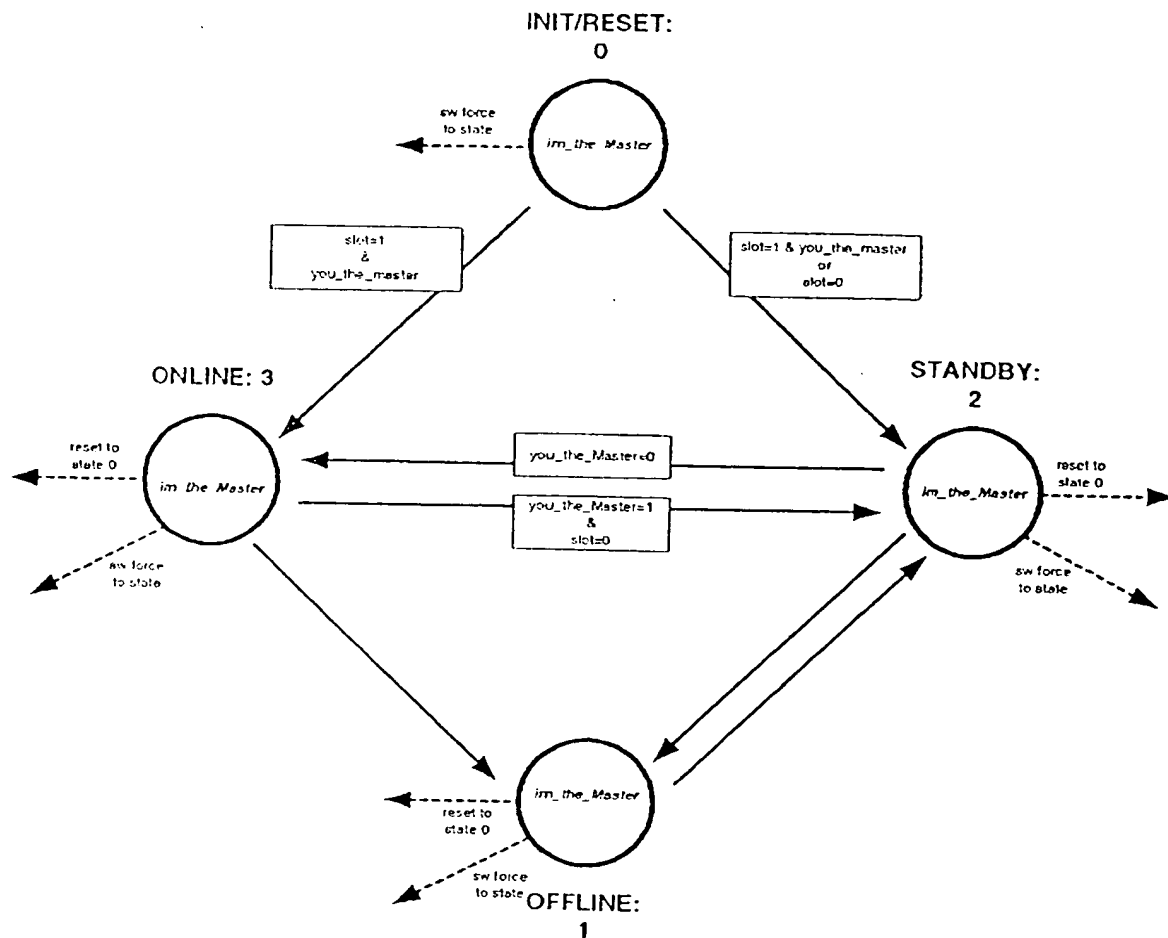
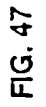


FIG. 46



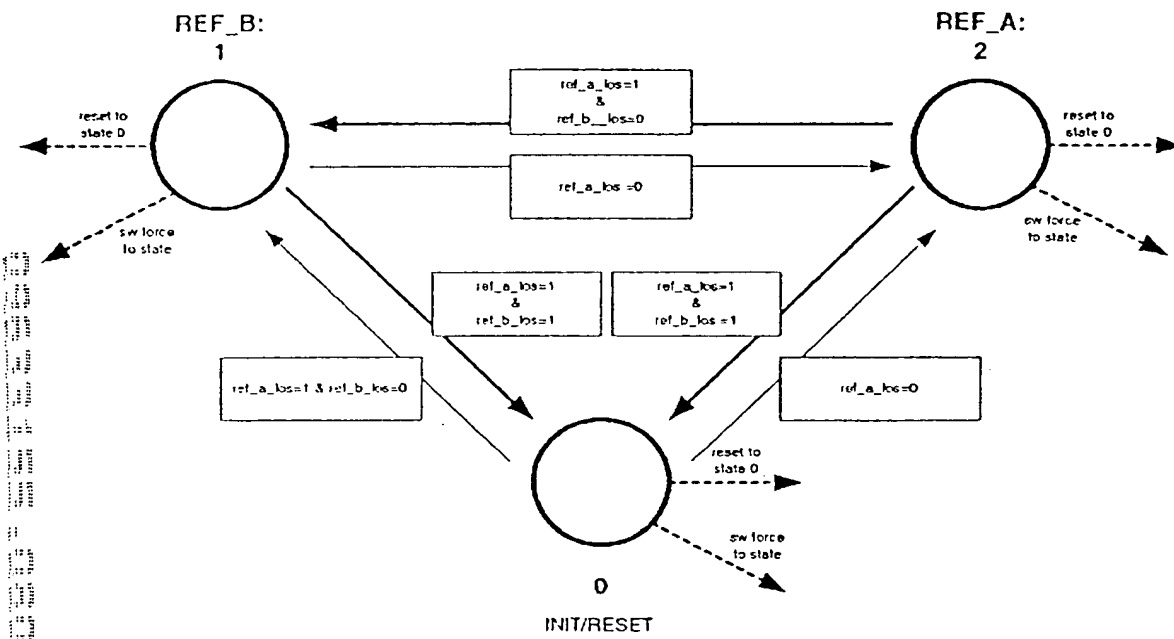


FIG. 48

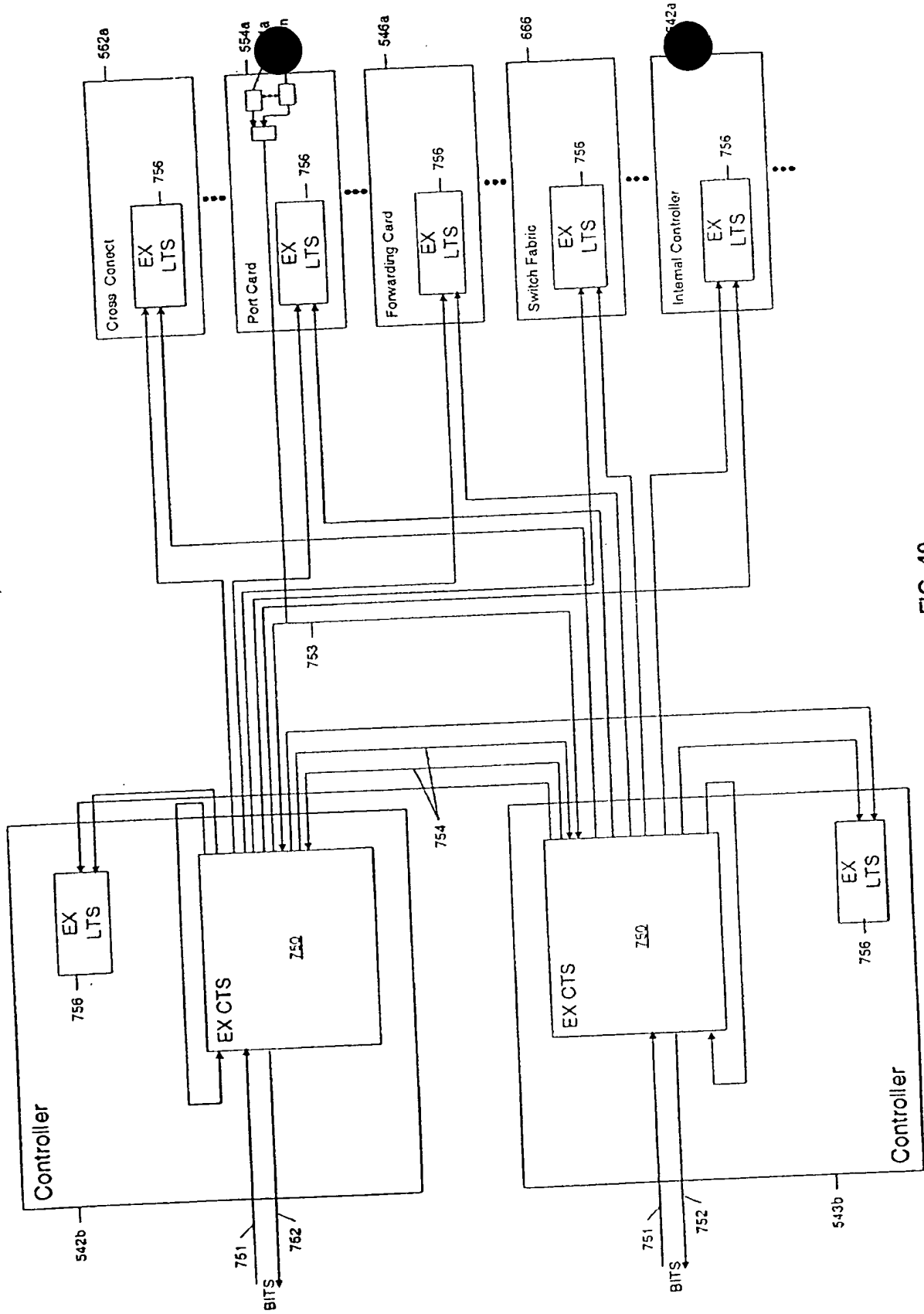


FIG. 49

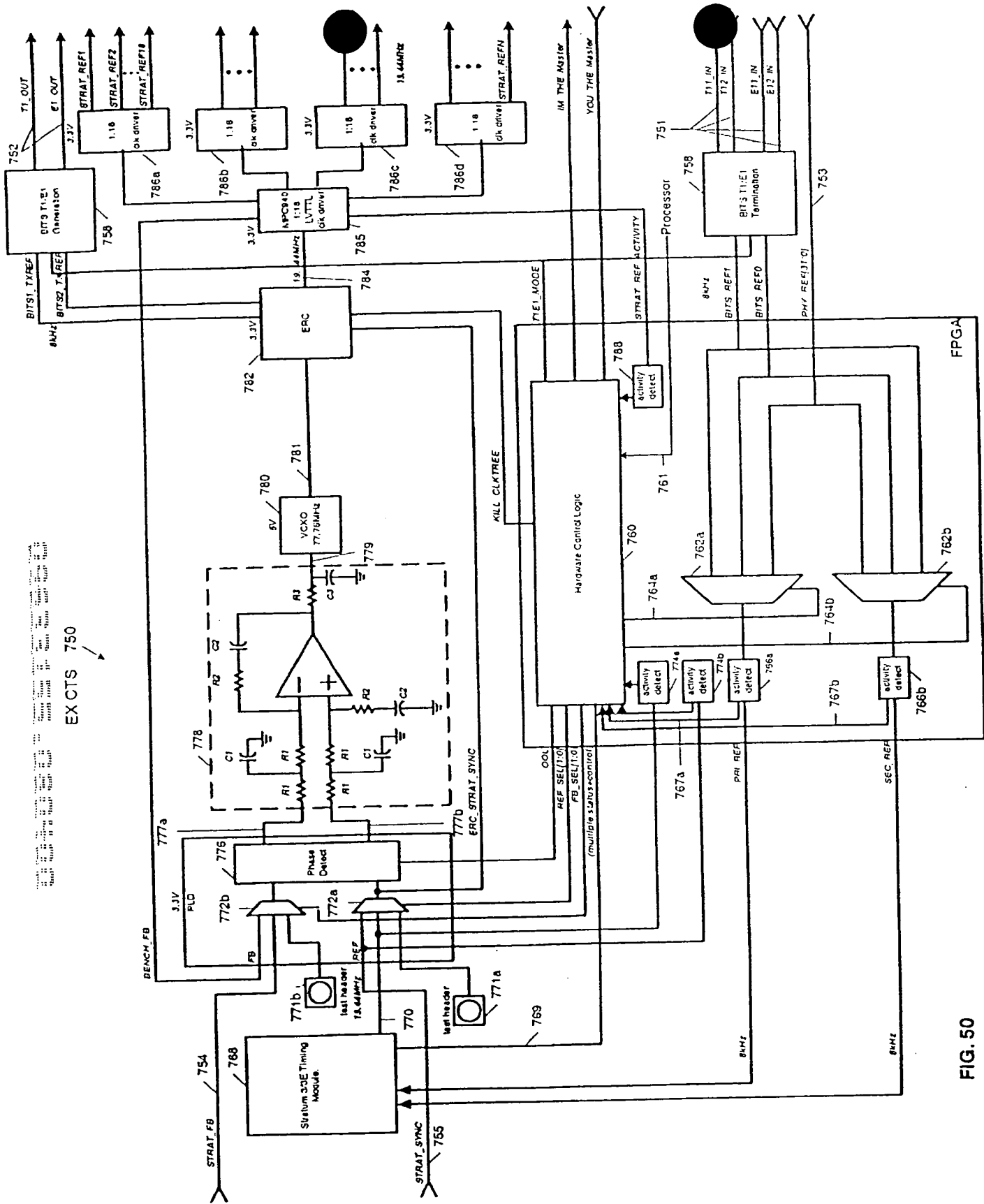


FIG. 50

19.44 MHz with
embedded 8kHz

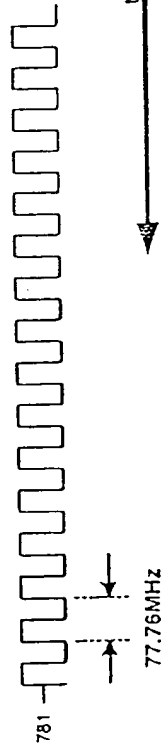
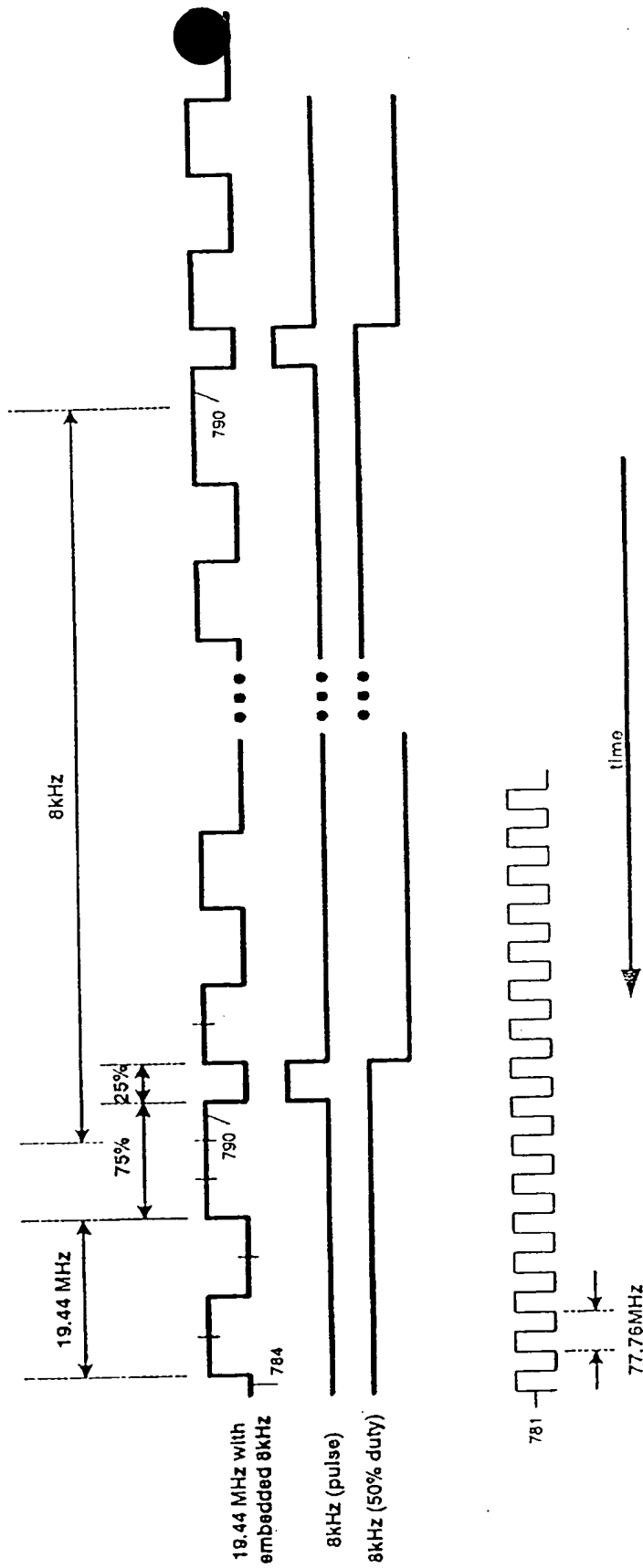


FIG. 51

792

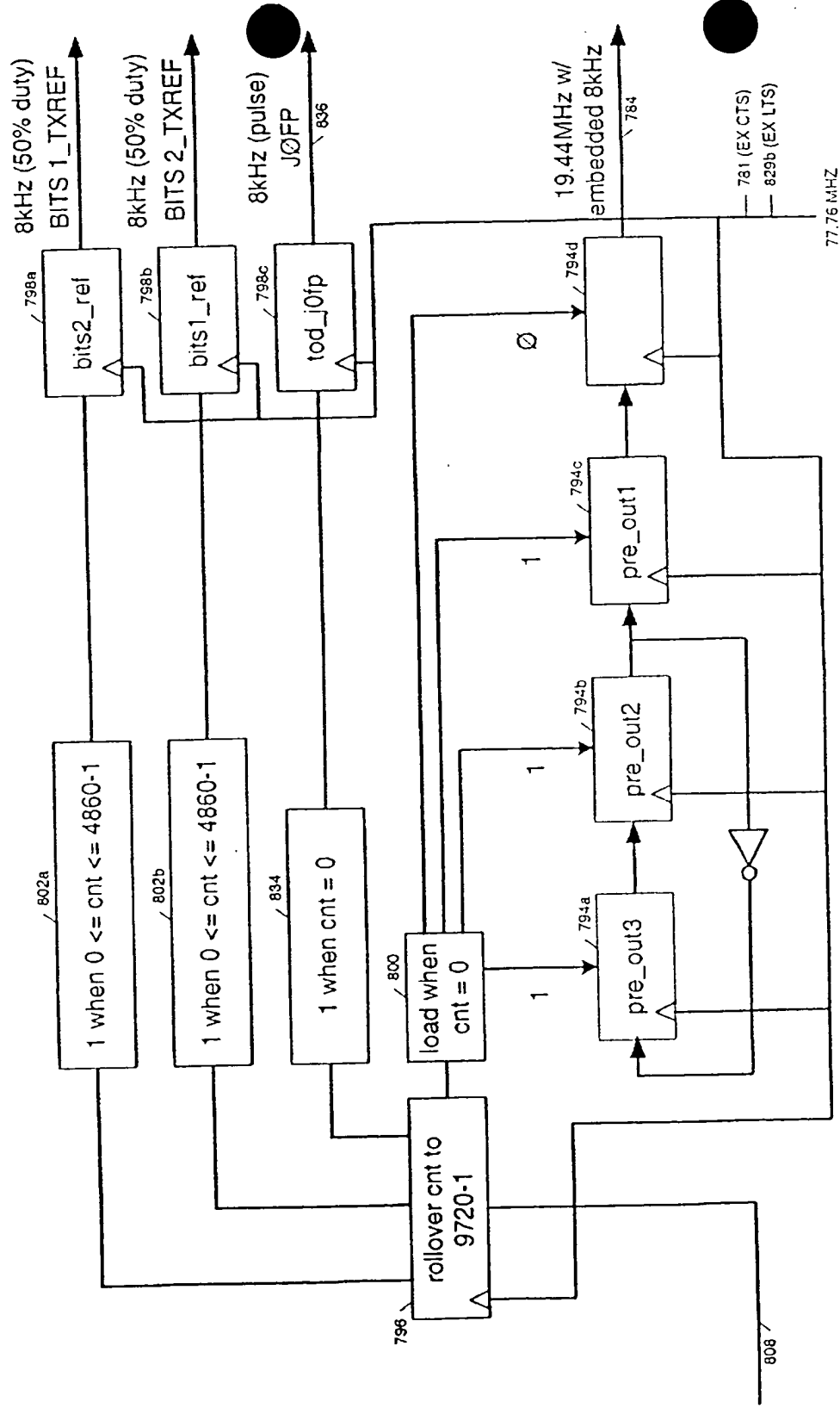
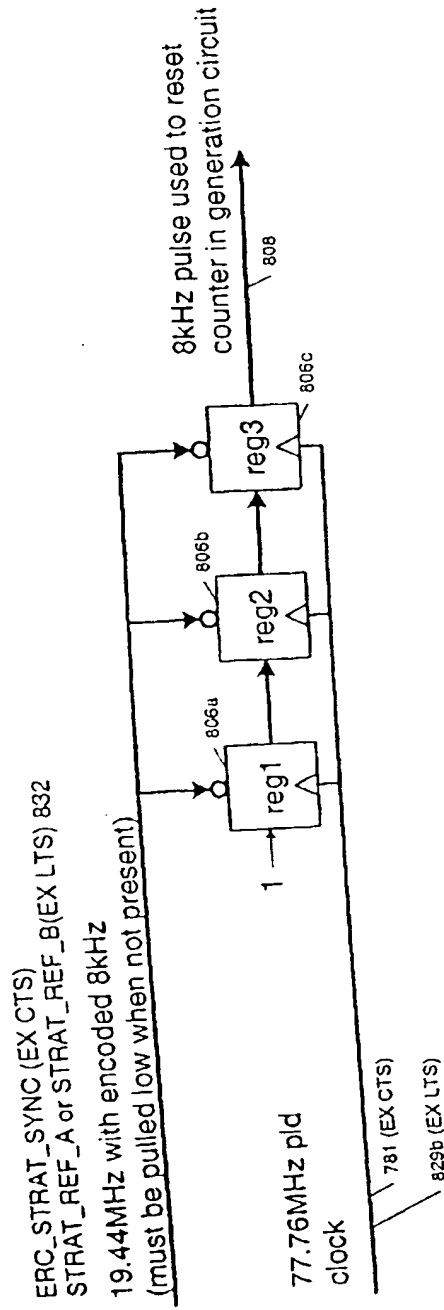


Fig. 52

11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140 141 142 143 144 145 146 147 148 149 150 151 152 153 154 155 156 157 158 159 160 161 162 163 164 165 166 167 168 169 170 171 172 173 174 175 176 177 178 179 180 181 182 183 184 185 186 187 188 189 190 191 192 193 194 195 196 197 198 199 200 201 202 203 204 205 206 207 208 209 210 211 212 213 214 215 216 217 218 219 220 221 222 223 224 225 226 227 228 229 230 231 232 233 234 235 236 237 238 239 240 241 242 243 244 245 246 247 248 249 250 251 252 253 254 255 256 257 258 259 260 261 262 263 264 265 266 267 268 269 270 271 272 273 274 275 276 277 278 279 280 281 282 283 284 285 286 287 288 289 290 291 292 293 294 295 296 297 298 299 300 301 302 303 304 305 306 307 308 309 310 311 312 313 314 315 316 317 318 319 320 321 322 323 324 325 326 327 328 329 330 331 332 333 334 335 336 337 338 339 340 341 342 343 344 345 346 347 348 349 350 351 352 353 354 355 356 357 358 359 360 361 362 363 364 365 366 367 368 369 370 371 372 373 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 391 392 393 394 395 396 397 398 399 400 401 402 403 404 405 406 407 408 409 410 411 412 413 414 415 416 417 418 419 420 421 422 423 424 425 426 427 428 429 430 431 432 433 434 435 436 437 438 439 440 441 442 443 444 445 446 447 448 449 450 451 452 453 454 455 456 457 458 459 460 461 462 463 464 465 466 467 468 469 470 471 472 473 474 475 476 477 478 479 480 481 482 483 484 485 486 487 488 489 490 491 492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 520 521 522 523 524 525 526 527 528 529 530 531 532 533 534 535 536 537 538 539 540 541 542 543 544 545 546 547 548 549 550 551 552 553 554 555 556 557 558 559 560 561 562 563 564 565 566 567 568 569 570 571 572 573 574 575 576 577 578 579 580 581 582 583 584 585 586 587 588 589 590 591 592 593 594 595 596 597 598 599 600 601 602 603 604 605 606 607 608 609 610 611 612 613 614 615 616 617 618 619 620 621 622 623 624 625 626 627 628 629 630 631 632 633 634 635 636 637 638 639 640 641 642 643 644 645 646 647 648 649 650 651 652 653 654 655 656 657 658 659 660 661 662 663 664 665 666 667 668 669 670 671 672 673 674 675 676 677 678 679 680 681 682 683 684 685 686 687 688 689 690 691 692 693 694 695 696 697 698 699 700 701 702 703 704 705 706 707 708 709 710 711 712 713 714 715 716 717 718 719 720 721 722 723 724 725 726 727 728 729 730 731 732 733 734 735 736 737 738 739 740 741 742 743 744 745 746 747 748 749 750 751 752 753 754 755 756 757 758 759 760 761 762 763 764 765 766 767 768 769 770 771 772 773 774 775 776 777 778 779 780 781 782 783 784 785 786 787 788 789 790 791 792 793 794 795 796 797 798 799 800 801 802 803 804 805 806 807 808 809 810 811 812 813 814 815 816 817 818 819 820 821 822 823 824 825 826 827 828 829 830 831 832 833 834 835 836 837 838 839 840 841 842 843 844 845 846 847 848 849 850 851 852 853 854 855 856 857 858 859 860 861 862 863 864 865 866 867 868 869 870 871 872 873 874 875 876 877 878 879 880 881 882 883 884 885 886 887 888 889 890 891 892 893 894 895 896 897 898 899 900 901 902 903 904 905 906 907 908 909 910 911 912 913 914 915 916 917 918 919 920 921 922 923 924 925 926 927 928 929 930 931 932 933 934 935 936 937 938 939 940 941 942 943 944 945 946 947 948 949 950 951 952 953 954 955 956 957 958 959 960 961 962 963 964 965 966 967 968 969 970 971 972 973 974 975 976 977 978 979 980 981 982 983 984 985 986 987 988 989 990 991 992 993 994 995 996 997 998 999 1000

804



Extractor

FIG. 53

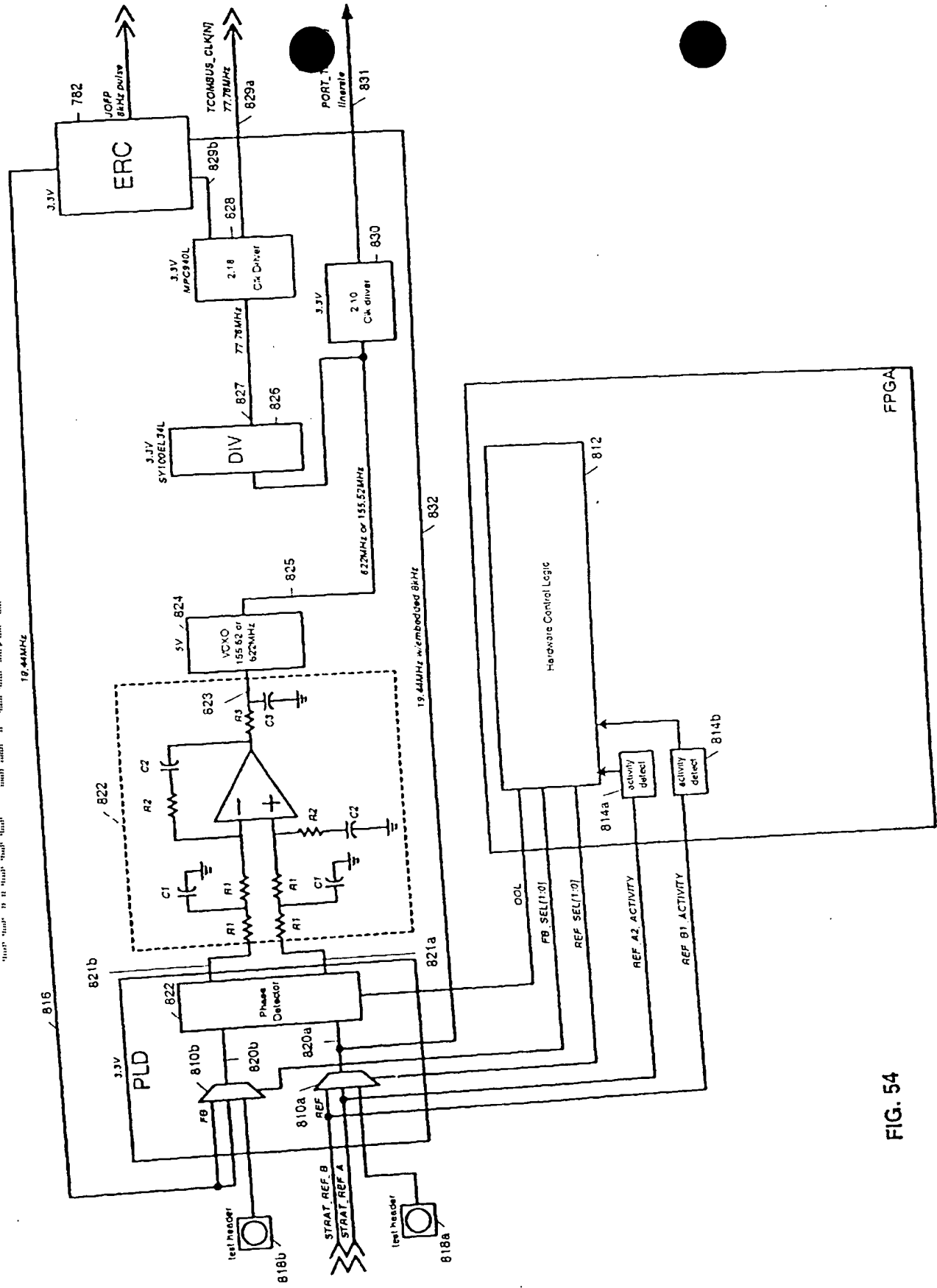


FIG. 54

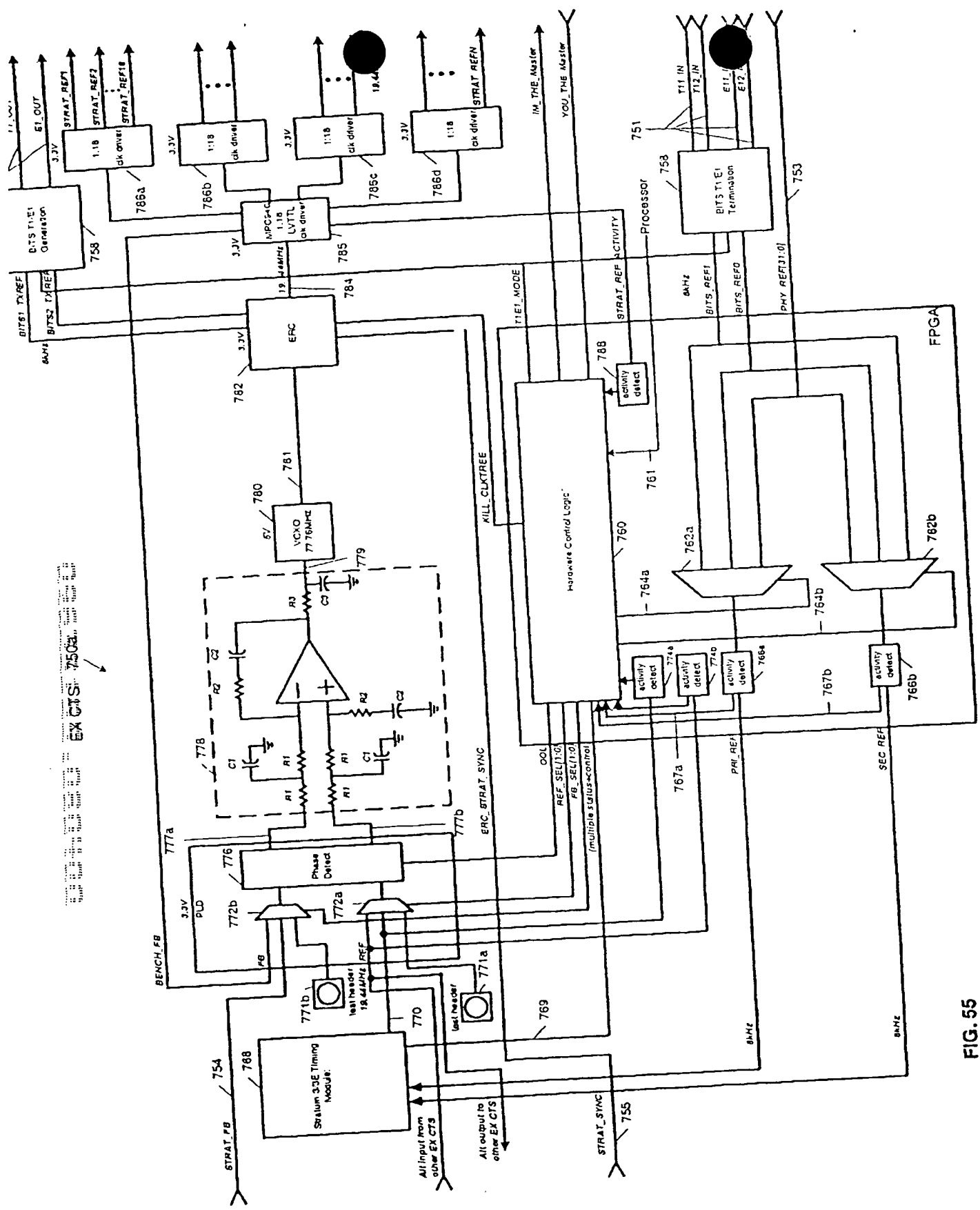


FIG. 55

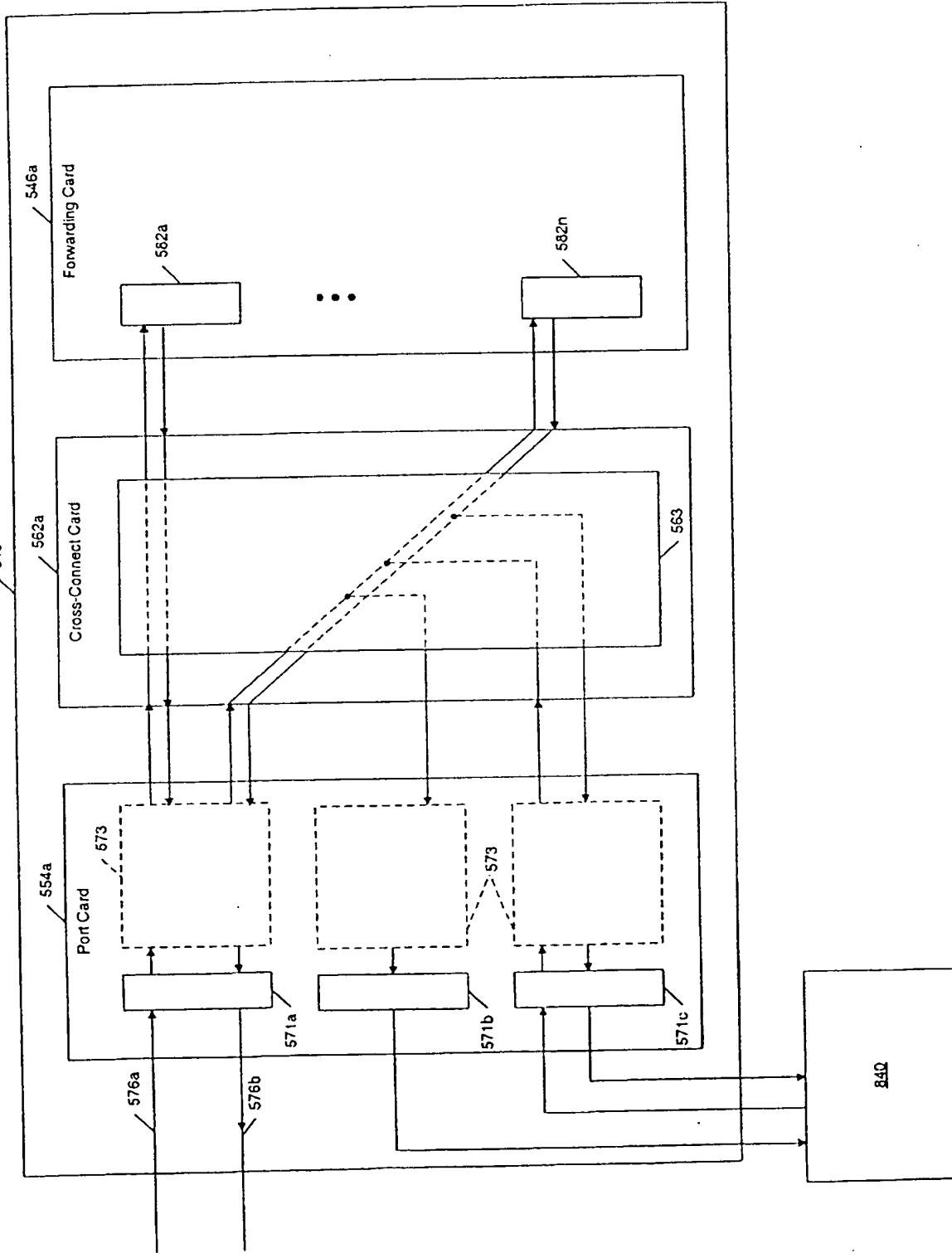


Fig. 56

FIG. 57

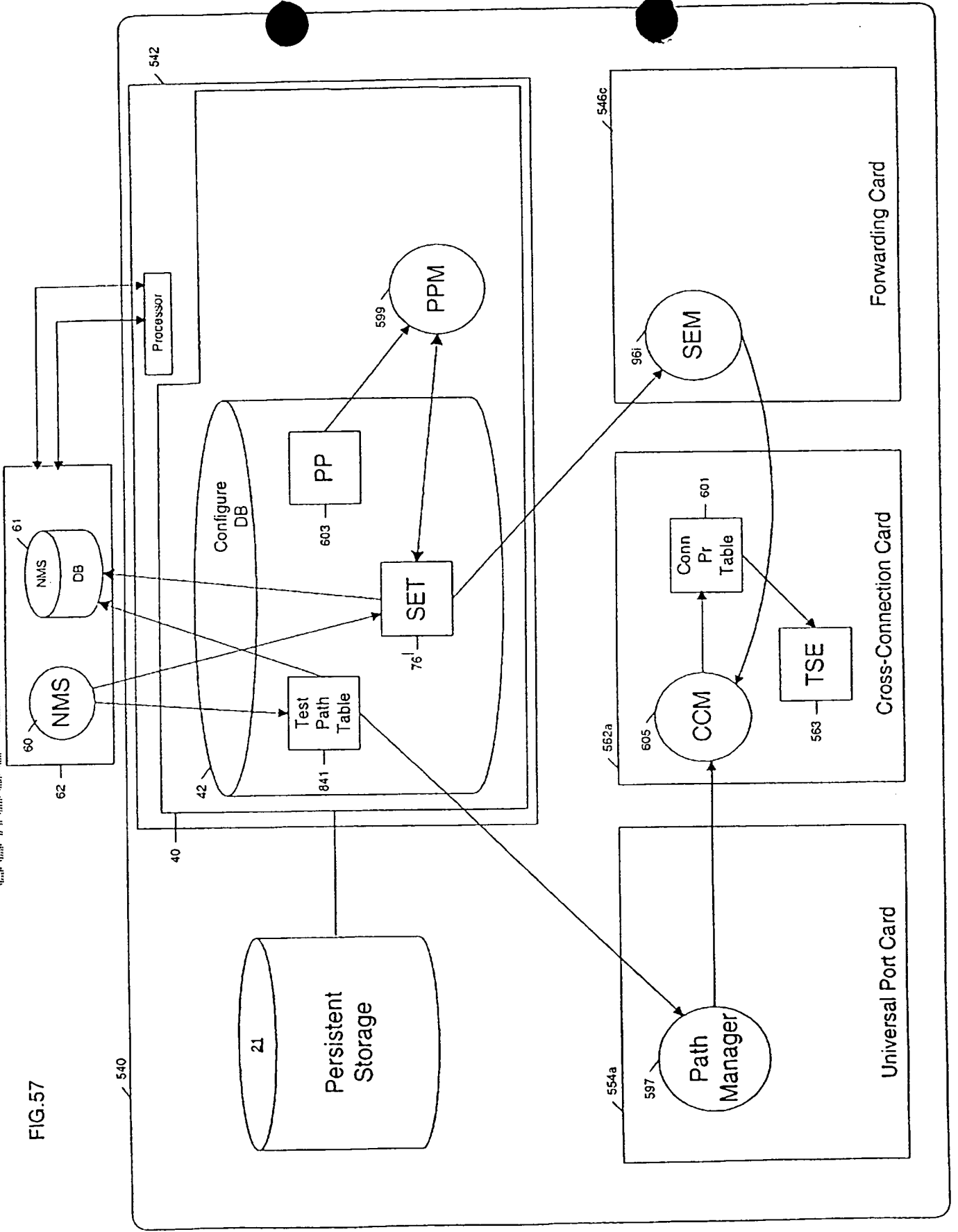


FIG. 58

Test Path Table 841

844		845				
Path LID	UP Port LID	Time Slot	# of Time Slots	Monitor	Enable Port Receiver	...
842 — 1666	1232	4	3	Ingress	No	
843 — 1666	1233	4	3	Egress	No	
844 — 1666	1233	4	3	Ingress	Yes	
• •	• •	• •	• •			• •